Pushbuttons

General information

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Concepts

1. **Momentary pushbuttons** are switching elements which are used for making or breaking contact while they are being pressed.

2. **Latching pushbutton** are used for making or breaking contact until they are returned to their initial position by being pressed again.

3. **Illuminated pushbuttons** have the same functions as described for (1) and (2) and feature an additional lamp socket for accomodating a filament, neon lamp or LED.

4. **Pushbuttons** with degree of protection IP 65 are provided with a special sealing, which guarantees reliable and long-lasting protection.

5. **Legending** can ce effected using legend inserts, by engraving or hot stamping. Grooved transparent lenses are not suitable for legending.

CE-Conformity

The products of the Chapter Pushbuttons" can – relating to the CE-conformity according to the Low-Voltage Directive 73/23/EWG – be divided into the following groups:

Emergency-stop components with an operating voltage < 50 V
F. ex. LUMOTAST 25 emergency-stop. For this pushbutton the Machine Directive 89/392/EWG applies.

All products with an operating voltage > 50 V
For these elements the Low-Voltage Directive 72/23/EWG applies.

All products with an operating voltage < 50 V
For these products no directive applies.

Single parts, accessories and illumination
For these products no directive applies.

EMC-Law
The components of this catalogue are within the meaning of the law concerning the Eletromagnetic Conformy (= EMC-Law) "basic components as, f. ex., switches, signal lamps or like" and, therefore, do not fall within the scope of the EMC-Law.

Declarations of Conformity
Declarations of conformity for all concerned products are available and can be delivered upon request. Please always state the exact order reference of the respective product.

Marking
The marking will be corresponding to the Low-Voltage Directive 73/23/EWG resp. the Directive "CE-Marking 93/68/EWG" either on the packing or on the product itself.

8 mm series

1

8 mm
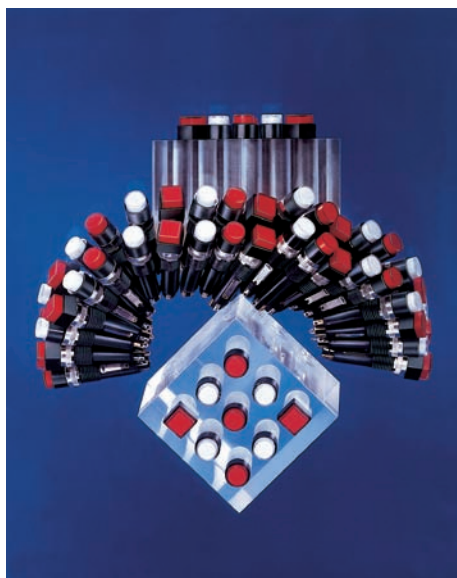
General data

Illuminable pushbuttons and signal lamps with lamp socket for a mounting hole diameter of 8.1 mm; 42 V, 250 mA max. Please order lamps/LED separately.

Content

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SOLUTIONS WITH PASSION

1

8 mm series, illuminated pushbutton, 42 V/250 mA

Mounting hole

Technical data

General information

Form of lens	protruding lens
Colour of lens	see order block
Form of collar	see order block

Dimensions

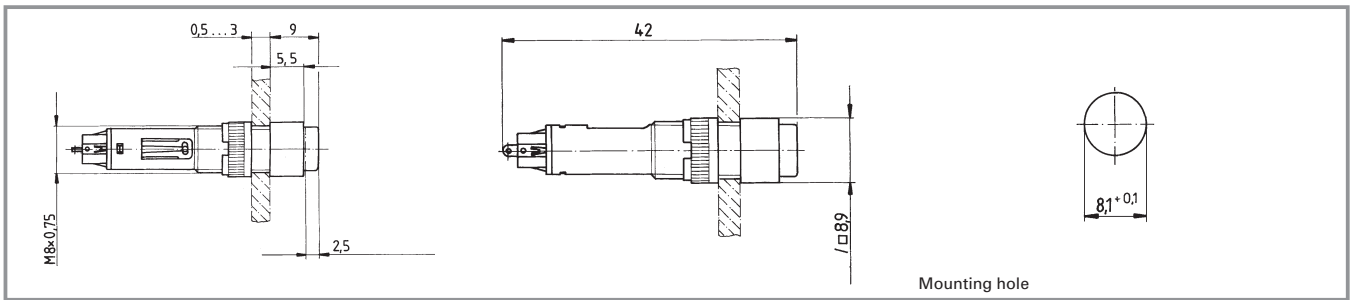|	
Length of collar	see order block
Diameter of collar	see order block
Width of collar	see order block
Overall height	9 mm
Mounting depth	31 mm
Mounting hole	8.1 mm

Mechanical design

Mounting	ring nut
Terminals	solder terminals
Contact system	2 plate springs
Contact function	see order block
Contact arrangement	1 NO
Contact materials	Au
Illuminability	yes
Lamp socket	Bi-Pin T 1

Mechanical characteristics

Operating force max.	2.6 N
Operating travel	2.7 mm
Switching travel NO	1 mm
Robustness	100 N

Electrical characteristics

Rated voltage AC/DC max.	42 V
Rated voltage AC/DC min.	0.02 V
Rated current AC/DC max.	250 mA
Rated current AC/DC min.	0.01 mA
Contact resistance max.	100 mΩ
Bouncing time max.	10 ms

Other specifications

Operating life (operations)	1000000 (momentary), 100000 (latching)
Degree of protection from front side	IP40
Ambient temp. operating min.	-25 °C
Ambient temp. operating max. without lamp /LED	+70 °C
Ambient temp. operating max. with lamp /LED	+55 °C
Storage temperature min.	-40 °C
Storage temperature max.	+80 °C
Resistance to constant environment	according to IEC 600 68-2-3 and 2-30
Resistance at variable environment	according to IEC 60068-2-14 and 2-33
Weight	2 g
Soldering time max.	3 sec.
Soldering temperature max.	350 °C

Typical accessories 8 mm series, illuminated pushbutton, 42 V/250 mA

Description	Photo	Order no.	Additional accessories see page
Filament lamp, Bi-Pin T 1 base, 24 - 28 V		**1.90.180.473/0000**	5 - 5
LED Bi-Pin T 1, red, 3 V		**1.90.691.026/0000**	5 - 15
LED Bi-Pin T 1, green, 3 V		**1.90.691.027/0000**	5 - 15
LED Bi-Pin T 1, yellow, 3 V		**1.90.691.028/0000**	5 - 15

Stock items are marked
by **bold printed** order numbers.

1

8 mm

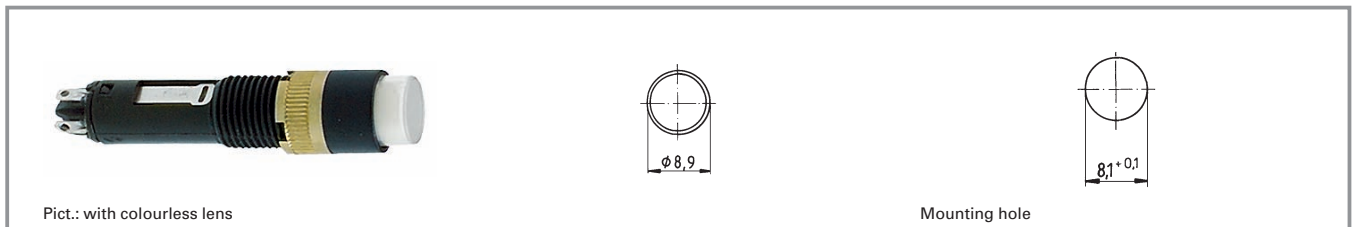## Typical accessories 8 mm series, illuminated pushbutton, 42 V/250 mA

Description	Photo	Order no.	Additional accessories see page
Fixing spanner M 8		**5.58.002.027/7705**	5 - 21

8 mm series, illuminated pushbutton, round collar, 42 V/250 mA

Pict.: with colourless lens

Mounting hole

φ 8,9

8,1 +0,1

Contact arrangement	Contact function	Lamp socket	Order no. without lens	Note
1 NO	momentary	Bi-Pin T 1	**1.15.116.001/0000**	Please include the desired lens in your order.
1 NO	latching	Bi-Pin T 1	**1.15.116.011/0000**	Please include the desired lens in your order.

Technical data see page 1 - 4

Lenses:
Lens, transparent colourless: **5.05.510.470/1002**
Lens, transparent red: **5.05.510.470/1303**
Lens, transparent yellow: **5.05.510.470/1402**
Lens, transparent green: **5.05.510.470/1502**

8 mm series, illuminated pushbutton, square collar, 42 V/250 mA
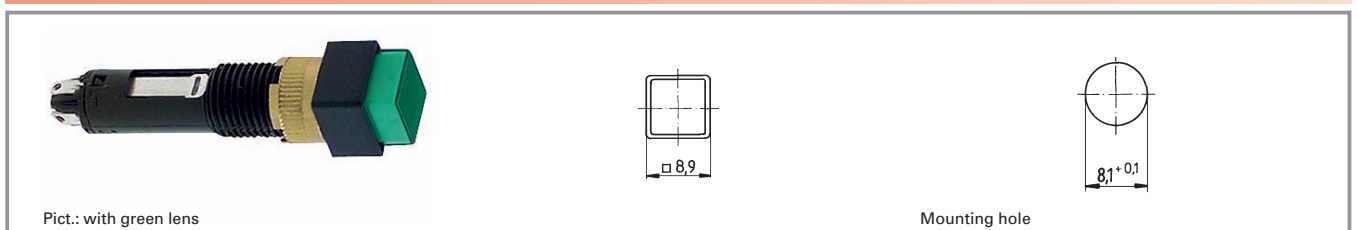
Pict.: with green lens

Mounting hole

□ 8,9

8,1 +0,1

Contact arrangement	Contact function	Lamp socket	Order no. without lens	Note
1 NO	momentary	Bi-Pin T 1	1.15.116.021/0000	Please include the desired lens in your order.
1 NO	latching	Bi-Pin T 1	1.15.116.031/0000	Please include the desired lens in your order.

Technical data see page 1 - 4

Lenses:
Lens, transparent colourless: 5.05.510.471/1002
Lens, transparent red: 5.05.510.471/1303
Lens, transparent yellow: 5.05.510.471/1402
Lens, transparent green: 5.05.510.471/1502
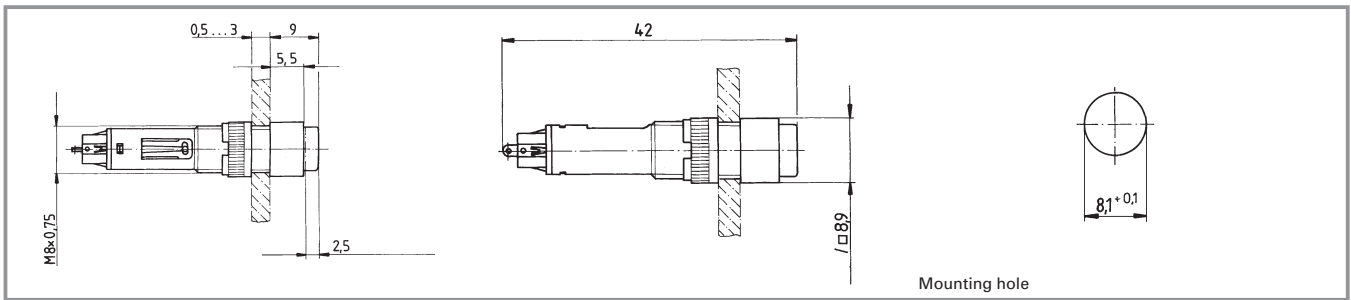
RAFI
SOLUTIONS WITH PASSION

1

8 mm series, signal lamp

Mounting hole

Technical data

General information

Form of lens	protruding lens
Colour of lens	see order block
Form of collar	see order block

Dimensions

Length of collar	8.9 mm
Width of collar	8.9 mm
Diameter of collar	see order block
Overall height	9 mm
Mounting depth	31 mm
Mounting hole	8.1 mm

Mechanical design

Mounting	ring nut
Terminals	solder terminals
Lamp socket	Bi-Pin T 1
Lamp	filament lamp / LED

Electrical characteristics

Voltage limit max.	24 V
Power limit max.	0.4 W

Other specifications

Degree of protection from front side	IP40
Weight	2 g
Ambient temp. operating min.	-25 °C
Ambient temp. operating max.	+55 °C
Storage temperature min.	-40 °C
Storage temperature max.	+80 °C
Resistance to constant environment	according to IEC 600 68-2-3 and 2-30
Resistance at variable environment	according to IEC 60068-2-14 and 2-33
Soldering time max.	3 sec.
Soldering temperature max.	350 °C

Typical accessories 8 mm series, signal lamp

Description	Photo	Order no.	Additional acces-sories see page
Filament lamp, Bi-Pin T 1 base, 24 - 28 V		**1.90.180.473/0000**	5 - 5
LED Bi-Pin T 1, red, 3 V		**1.90.691.026/0000**	5 - 15
LED Bi-Pin T 1, green, 3 V		**1.90.691.027/0000**	5 - 15
LED Bi-Pin T 1, yellow, 3 V		**1.90.691.028/0000**	5 - 15
Fixing spanner M 8		**5.58.002.027/7705**	5 - 21
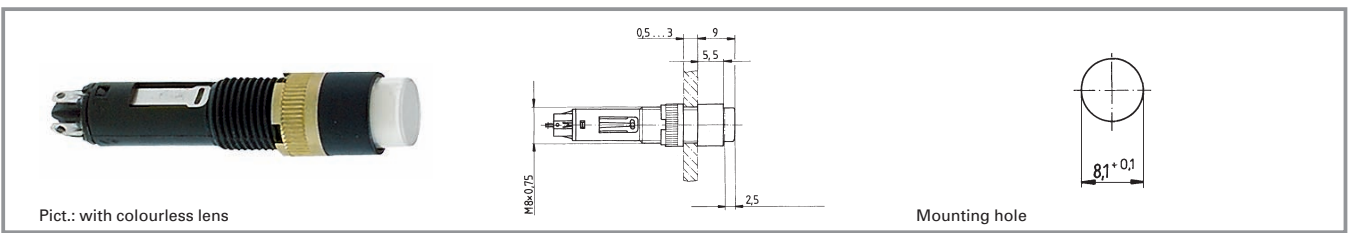
Stock items are marked
by **bold printed** order numbers.

Pushbuttons

8 mm series, signal lamp, round collar

Pict.: with colourless lens

Mounting hole

Voltage limit max.	Power limit max.	Lamp socket	Colour of lens	Order no. without lens	Note
24 V	0.4 W	Bi-Pin T 1		1.65.120.001/0000	Please include the desired lens in your order.

Technical data see page 1 - 6

Lenses:
Lens, transparent colourless: 5.05.510.359/1002
Lens, transparent red: 5.05.510.359/1303
Lens, transparent yellow: 5.05.510.359/1402
Lens, transparent green: 5.05.510.359/1502

8 mm series, signal lamp, square collar

Pict.: with green lens

Mounting hole

Voltage limit max.	Power limit max.	Lamp socket	Colour of lens	Order no. without lens	Note
24 V	0.4 W	Bi-Pin T 1		1.65.120.011/0000	Please include the desired lens in your order.

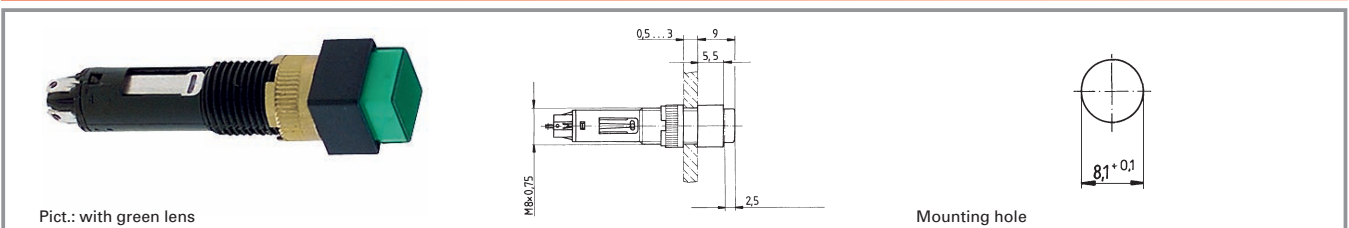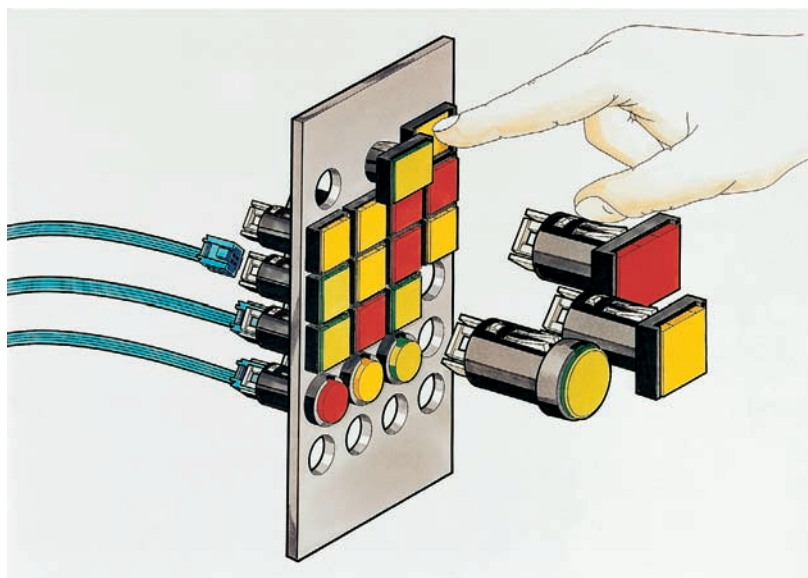Technical data see page 1 - 6

Lenses:
Lens, transparent colourless: 5.05.510.360/1002
Lens, transparent red: 5.05.510.360/1303
Lens, transparent yellow: 5.05.510.360/1402
Lens, transparent green: 5.05.510.360/1502

Pushbuttons

Stock items are marked
by **bold printed** order numbers.

1

8 mm

LUMOTAST FK

General data

LUMOTAST FK illuminated pushbutton range
• Illuminable pushbuttons and signal lamps with lamp socket T 1/T 1$\frac{1}{4}$. Please order lamps / LED separately.
• Mounting hole diameter 16.2 mm
• 42 V/100 mA max.
• Water-jet proof IP65
• Low profile
• Keyed socket connector and flat ribbon cable in insulation displacement (IDC) technology or PCB plug-in socket
• Time-saving click fixing method: Insert pushbutton into front panel and press pushbutton once to fix it.

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Series LUMOTAST FK

16.2 mm mounting hole diameter

Design

① Pushbutton as supplied
② Insert pushbutton into panel cut-out
③ Press once to fit
④ Attach connector with flat-ribbon cable
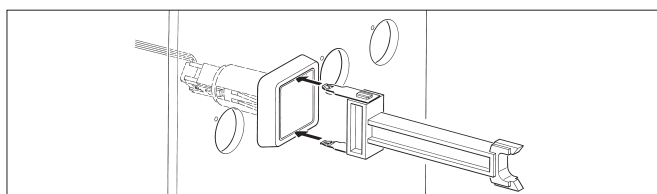
Disassembly

1. Grip body/lens
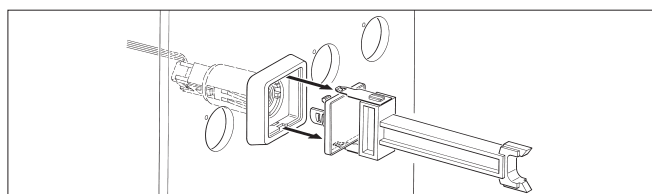
2. Pull out body/lens
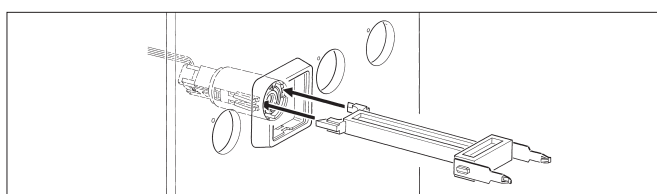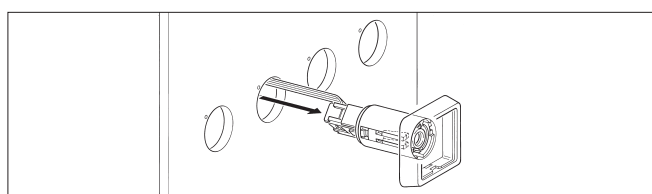
3. Release click lever

4. Pull out pushbutton/signal lamp with cable

LUMOTAST FK

Dimensional drawing

With quick connector and flat-ribbon cable

Connection diagram (PCB top view)

1 + 4 = pushbutton connection, 2 + 3 = lamp connection

With plug-in socket

Front panel top view

PCB top view

Plug-in socket for PCB

PCB hole diagram

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SOLUTIONS WITH PASSION

LUMOTAST FK illuminated pushbutton, 42 V/100 mA

Pict.: with socket connector | with plug-in socket for PCB | Panel cut-out
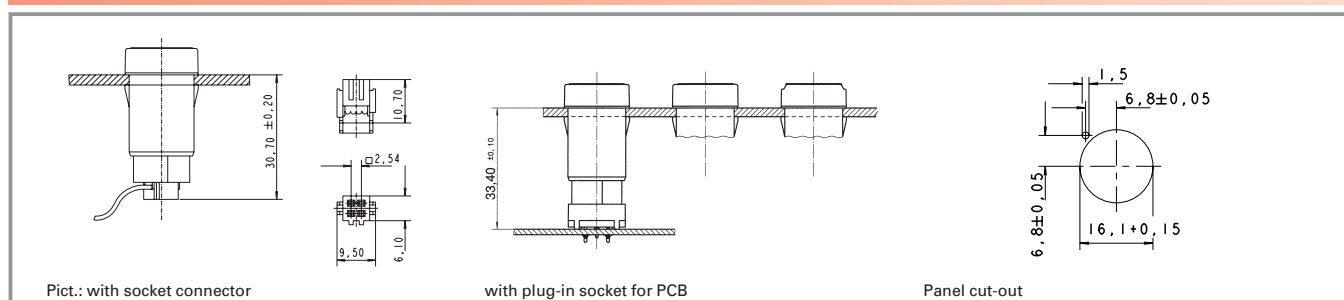
Technical data

General information

Actuator	flat lens
Colour of mushroom	see order block
Form of collar	see order block

Dimensions

Length of collar	see order block
Width of collar	see order block
Diameter of collar	see order block
Overall height	6.6 mm
Mounting depth with connector	30.7 mm
Mounting depth with plug-in socket	33.4 mm
Mounting hole	16.2 mm

Mechanical design

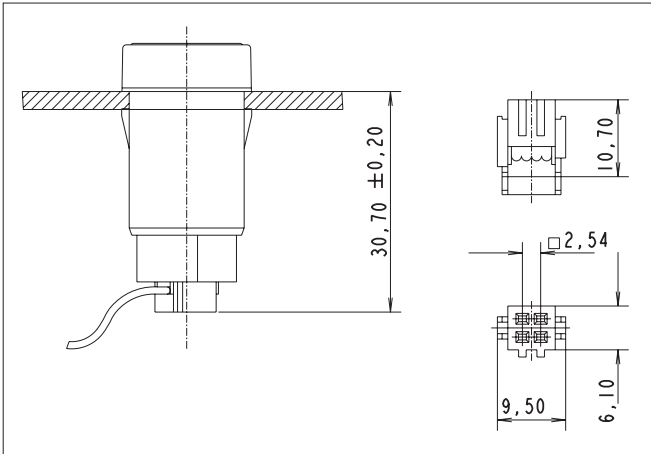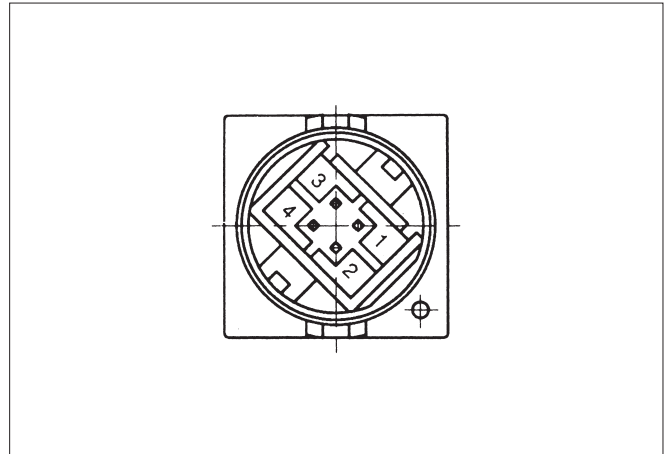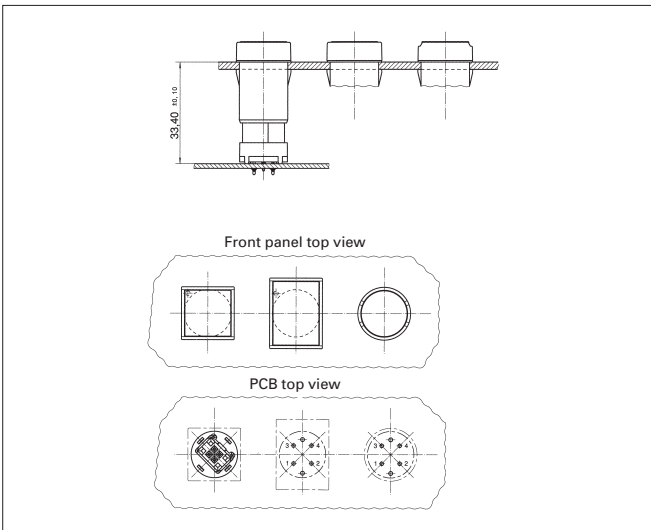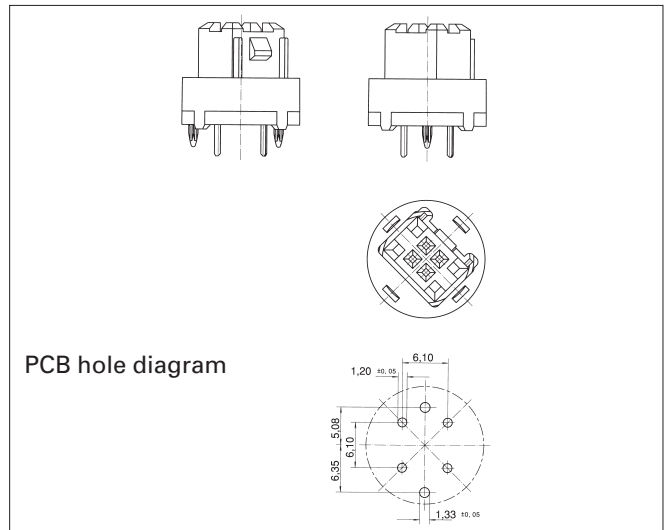|	
Mounting	click quick connection
Terminals	pin connector 4-pol./ plug-in socket
Contact system	snap-action contact
Contact function	momentary
Contact arrangement	1 NO
Contact materials	Au
Illuminability	yes
Lamp socket	Bi-Pin T 1/T 1º

Mechanical characteristics

Operating force max.	6 N
Operating travel	3 mm
Switching travel	1.9 mm
Robustness min.	100 N

Electrical characteristics

Rated voltage AC/DC max.	42 V
Rated voltage AC/DC min.	0.02 V
Rated current AC/DC max.	100 mA
Rated current AC/DC min.	0.01 mA
Contact resistance acc. to life max.	300 mΩ
Contact resistance when new max.	100 mΩ
Bouncing time max.	5 ms

Other specifications

Operating life	1000000
Degree of protection from front side	IP65
Ambient temp. operating min.	-25 °C
Ambient temp. operating without lamp max.	+70 °C
Ambient temp. operating with lamp max.	+55 °C
Storage temperature min.	-40 °C
Storage temperature max.	+80 °C
Resistance to constant environment	according to IEC 600 68-2-3 and 2-30
Resistance at variable environment	according to IEC 60068-2-14 and 2-33
Weight	6 g

Typical accessories LUMOTAST FK illuminated pushbutton, 42 V/100 mA

Description	Photo	Order no.	Additional accessories see page
Filament lamp, Bi-Pin T 1$\frac{1}{4}$ base, 12 V		**1.90.180.474/0000**	5 - 5
Filament lamp, Bi-Pin T 1$\frac{1}{4}$ base, 28 V		**1.90.180.475/0000**	5 - 5
LED Bi-Pin T 1 superbright, red, 24 V		**1.90.690.351/0000**	5 - 15
LED Bi-Pin T 1 superbright, green, 24 V		**1.90.690.352/0000**	5 - 15

Stock items are marked by **bold printed** order numbers.
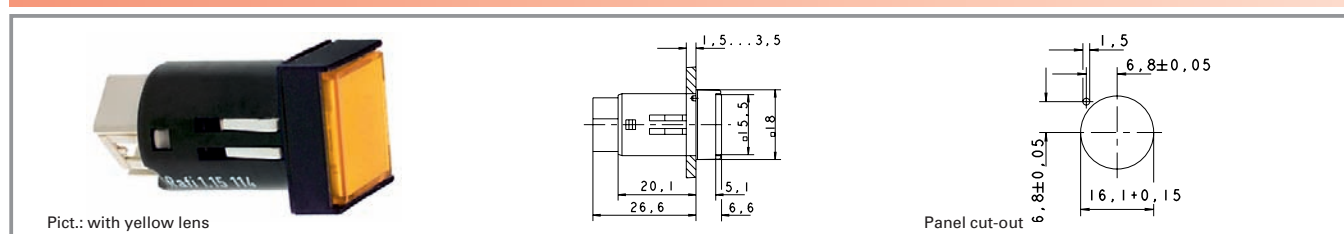
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SOLUTIONS WITH PASSION

Typical accessories LUMOTAST FK illuminated pushbutton, 42 V/100 mA

Description	Photo	Order no.	Additional accessories see page
LED Bi-Pin T 1 superbright, yellow, 24 V		**1.90.690.353/0000**	5 - 15
LED Bi-Pin T 1 superbright, blue, 24 V		**1.90.690.354/0000**	5 - 15
LED Bi-Pin T 1 superbright, white, 24 V		**1.90.690.355/0000**	5 - 15
LED Bi-Pin T 1, red, 3 V		**1.90.691.026/0000**	5 - 15
LED Bi-Pin T 1, green, 3 V		**1.90.691.027/0000**	5 - 15
LED Bi-Pin T 1, yellow, 3 V		**1.90.691.028/0000**	5 - 15
Plug-in socket for PCB		**5.00.645.036/0000**	5 - 23
Cable (flat ribbon cable 10 cm with socket connector and male quick connector, AMP 4-pin)		**5.03.771.306/0000**	5 - 22
Disassembly tool for LUMOTAST FK		**5.05.800.041/0000**	5 - 22
Flat ribbon cable, 4-wire, 1 m long		5.37.700.124/0000	5 - 23
Socket connector, 4-pin		**5.92.025.368/0000**	5 - 22

LUMOTAST FK illuminated pushbutton, square collar, 42 V/100 mA

Pict.: with yellow lens

Panel cut-out

Contact function	Contact arrangement	Order no. without lens	Note
momentary	1 NO	**1.15.114.906/0000**	Please include the desired lens in your order.

Technical data see page 1 - 12

Lenses:
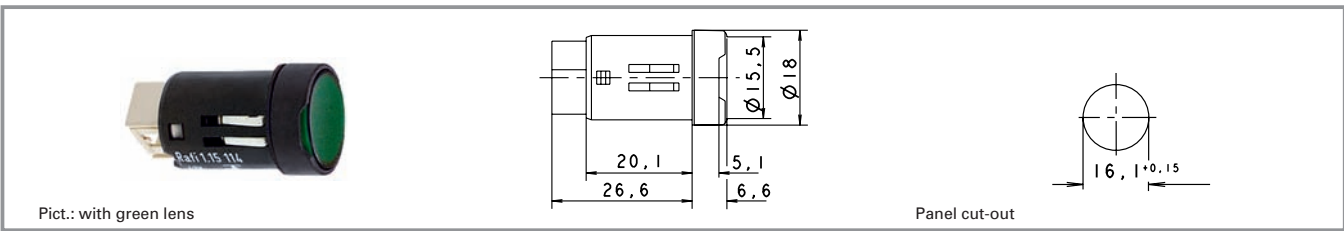Lens, square, transparent colourless: **5.49.075.015/1002**
Lens, square, transparent red: **5.49.075.015/1306**
Lens, square, transparent yellow: **5.49.075.015/1403**
Lens, square, transparent green: **5.49.075.015/1505**
Lens, square, transparent blue: **5.49.075.015/1607**

A notch on the lamp socket identifies the cathode side.

Stock items are marked
by **bold printed** order numbers.

RAFI
SOLUTIONS WITH PASSION

1

LUMOTAST FK illuminated pushbutton, round collar, 42 V/100 mA

Pict.: with green lens

Panel cut-out

Contact function	Contact arrangement	Order no. without lens	Note
momentary	1 NO	**1.15.114.936/0000**	Please include the desired lens in your order.

Technical data see page 1 - 12

Lenses:
Lens, round, transparent colourless: **5.49.075.016/1002**
Lens, round, transparent red: **5.49.075.016/1306**
Lens, round, transparent yellow: **5.49.075.016/1403**
Lens, round, transparent green: **5.49.075.016/1505**
Lens, round, transparent blue: **5.49.075.016/1607**

A notch on the lamp socket identifies the cathode side.

LUMOTAST FK illuminated pushbutton, rectangular collar, 42 V/100 mA

Pict.: with red lens

Panel cut-out
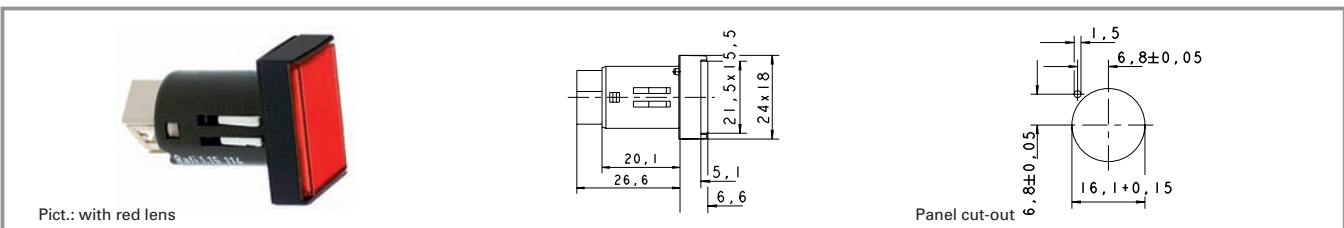
Contact function	Contact arrangement	Order no. without lens	Note
momentary	1 NO	**1.15.114.966/0000**	Please include the desired lens in your order.

Technical data see page 1 - 12

Lenses:
Lens, rectangular, transparent colourless: **5.49.075.017/1002**
Lens, rectangular, transparent red: **5.49.075.017/1306**
Lens, rectangular, transparent yellow: **5.49.075.017/1403**
Lens, rectangular, transparent green: **5.49.075.017/1505**
Lens, rectangular, transparent blue: **5.49.075.017/1607**

A notch on the lamp socket identifies the cathode side.

Stock items are marked
by **bold printed** order numbers.

LUMOTAST FK

RAFI
SOLUTIONS WITH PASSION

LUMOTAST FK signal lamp

Pict.: with socket connector | with plug-in socket for PCB | Panel cut-out
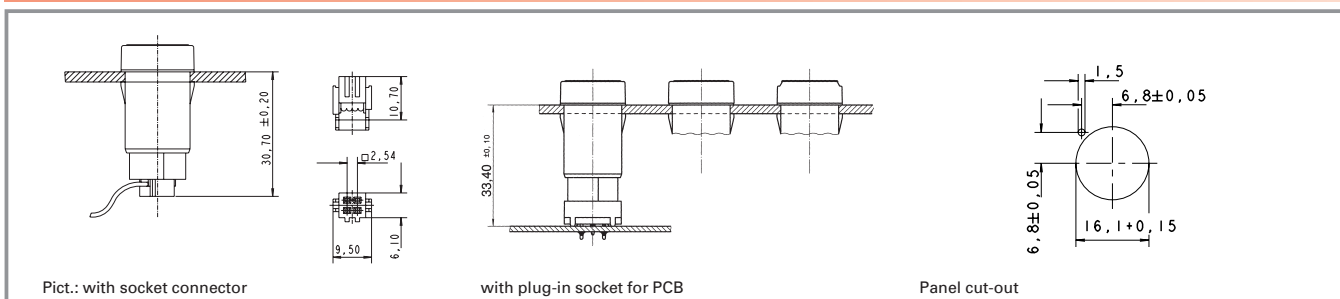
Technical data

General information

Form of lens	flat lens
Colour of lens	see order block
Form of collar	see order block

Dimensions

Length of collar	see order block
Width of collar	see order block
Mounting depth with connector	30.7 mm
Mounting depth with plug-in socket	33.4 mm
Mounting hole	16.2 mm

Mechanical design

Mounting	click quick connection
Terminals	pin connector 4-pol./ plug-in socket
Lamp socket	Bi-Pin T 1/T 1¼
Lamp	filament lamp / LED

Electrical characteristics

Voltage limit max.	24 V
Power limit max.	0,7 W

Other specifications

Degree of protection from front side	IP65
Weight	5 g
Ambient temp. operating min.	-25 °C
Ambient temp. operating max.	+55 °C
Storage temperature min.	-40 °C
Storage temperature max.	+80 °C
Resistance to constant environment	according to IEC 600 68-2-3 and 2-30
Resistance at variable environment	according to IEC 60068-2-14 and 2-33

Typical accessories LUMOTAST FK signal lamp

Description	Photo	Order no.	Additional accessories see page
Filament lamp, Bi-Pin T 1¼ base, 12 V		**1.90.180.474/0000**	5 - 5
Filament lamp, Bi-Pin T 1¼ base, 28 V		**1.90.180.475/0000**	5 - 5
LED Bi-Pin T 1 superbright, red, 24 V		**1.90.690.351/0000**	5 - 15
LED Bi-Pin T 1 superbright, green, 24 V		**1.90.690.352/0000**	5 - 15
LED Bi-Pin T 1 superbright, yellow, 24 V		**1.90.690.353/0000**	5 - 15
LED Bi-Pin T 1 superbright, blue, 24 V		**1.90.690.354/0000**	5 - 15
LED Bi-Pin T 1 superbright, white, 24 V		**1.90.690.355/0000**	5 - 15
LED Bi-Pin T 1, red, 3 V		**1.90.691.026/0000**	5 - 15

Stock items are marked
by **bold printed** order numbers.

Typical accessories LUMOTAST FK signal lamp

Description	Photo	Order no.	Additional accessories see page
LED Bi-Pin T 1, green, 3 V		**1.90.691.027/0000**	5 - 15
LED Bi-Pin T 1, yellow, 3 V		**1.90.691.028/0000**	5 - 15
Plug-in socket for PCB		**5.00.645.036/0000**	5 - 23
Cable (flat ribbon cable 10 cm with socket connector and male quick connector, AMP 4-pin)		**5.03.771.306/0000**	5 - 22
Disassembly tool for LUMOTAST FK		**5.05.800.041/0000**	5 - 22
Flat ribbon cable, 4-wire, 1 m long		5.37.700.124/0000	5 - 23
Socket connector, 4-pin		**5.92.025.368/0000**	5 - 22

LUMOTAST FK signal lamp, square collar
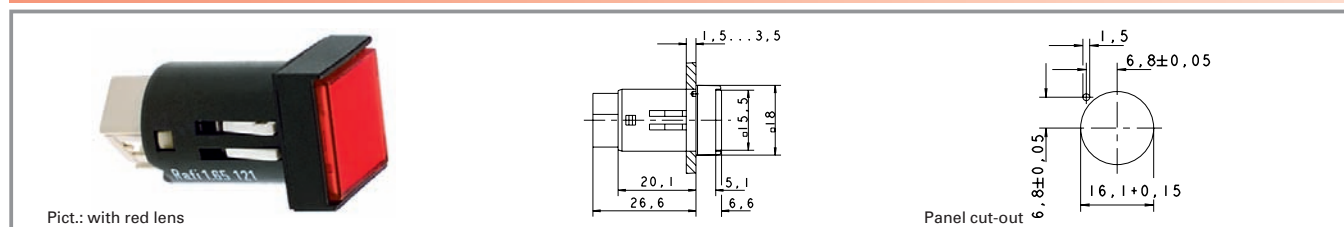
Pict.: with red lens

Panel cut-out

Power limit max.	Voltage limit max.	Lamp socket	Order no. without lens	Note
0.7 W	24 V	Bi-Pin T 1/T 1¼	**1.65.121.906/0000**	Please include the desired lens in your order.

Technical data see page 1 - 16

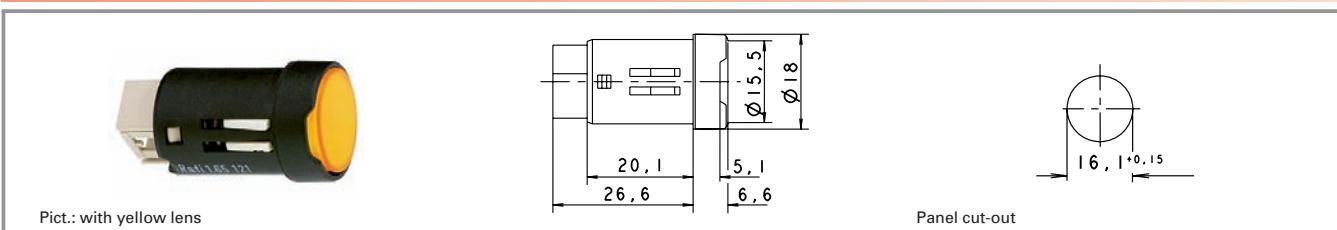**Lenses:**
Lens, square, transparent colourless: **5.49.075.015/1002**
Lens, square, transparent red: **5.49.075.015/1306**
Lens, square, transparent yellow: **5.49.075.015/1403**
Lens, square, transparent green: **5.49.075.015/1505**
Lens, square, transparent blue: **5.49.075.015/1607**

Do not press in lens in disassembled condition.
A notch on the lamp socket identifies the cathode side.

1

LUMOTAST FK signal lamp, round collar

Pict.: with yellow lens

Panel cut-out

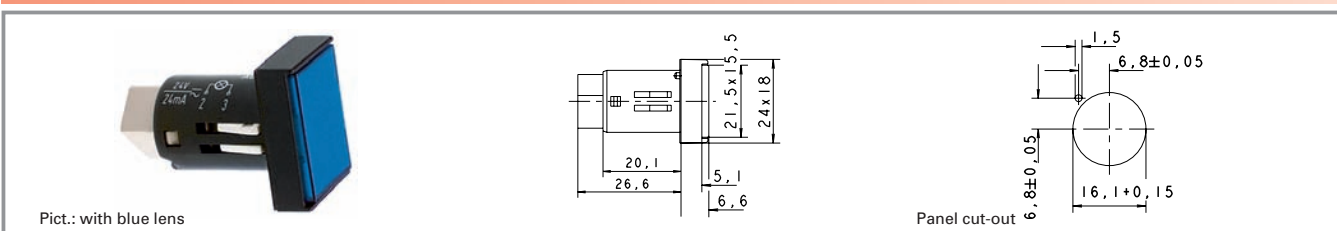| Power limit max.	Voltage limit max.	Lamp socket	Order no. without lens	Note
0.7 W	24 V	Bi-Pin T 1/T 1$\frac{1}{4}$	**1.65.121.936/0000**	Please include the desired lens in your order.

Technical data see page 1 - 16

Lenses:
Lens, round, transparent colourless: **5.49.075.016/1002**
Lens, round, transparent red: **5.49.075.016/1306**
Lens, round, transparent yellow: **5.49.075.016/1403**
Lens, round, transparent green: **5.49.075.016/1505**
Lens, round, transparent blue: **5.49.075.016/1607**

Do not press in lens in disassembled condition.
A notch on the lamp socket identifies the cathode side.

LUMOTAST FK signal lamp, rectangular collar

Pict.: with blue lens

Panel cut-out

Power limit max.	Voltage limit max.	Lamp socket	Order no. without lens	Note
0.7 W	24 V	Bi-Pin T 1/T 1$\frac{1}{4}$	**1.65.121.966/0000**	Please include the desired lens in your order.

Technical data see page 1 - 16

Lenses:
Lens, rectangular, transparent colourless: **5.49.075.017/1002**
Lens, rectangular, transparent red: **5.49.075.017/1306**
Lens, rectangular, transparent yellow: **5.49.075.017/1403**
Lens, rectangular, transparent green: **5.49.075.017/1505**
Lens, rectangular, transparent blue: **5.49.075.017/1607**

Do not press in lens in disassembled condition.
A notch on the lamp socket identifies the cathode side.

Stock items are marked
by **bold printed** order numbers.

General data

LUMOTAST 25 pushbutton range
• Illuminable pushbuttons and signal lamps. Please order lamps/LED separately.
• Mounting hole diameter: 16.2 mm
• 42 V/100 mA max.
• Water-jet proof IP65
• Low profile
• Lamp socket Bi-Pin T 1 for LEDs and filament lamps
• Keyed socket connector and flat ribbon cable or PCB plug-in socket
• Ring nut or click fixing method.

Content

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SOLUTIONS WITH PASSION

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Series LUMOTAST 25

16.2 mm mounting hole diameter

Design Click-Version
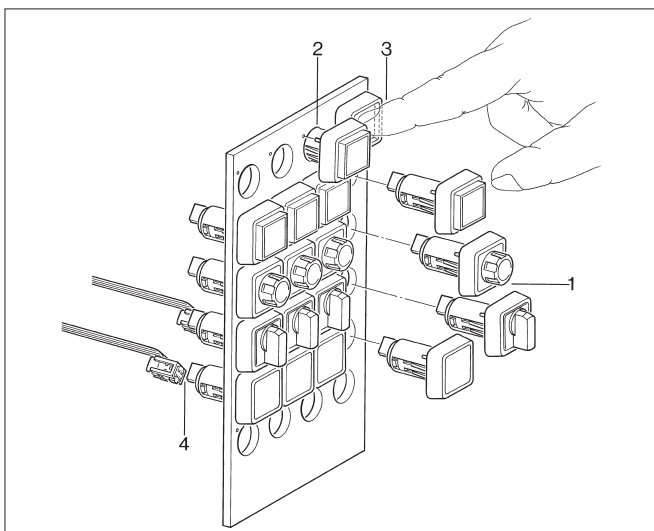
1. As delivered
2. Insert pushbutton in hole
3. Actuate once
4. Insert connector with flat-ribbon cable

Disassembly Click-Version

Click-Version from front (only for pushbuttons and signal lamps with special tool for dismounting)
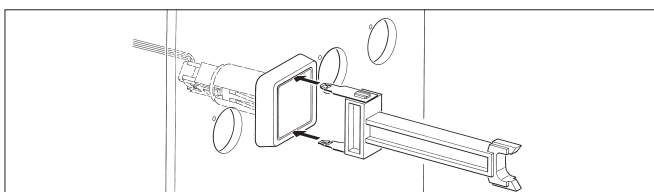
1. Grip body/lens
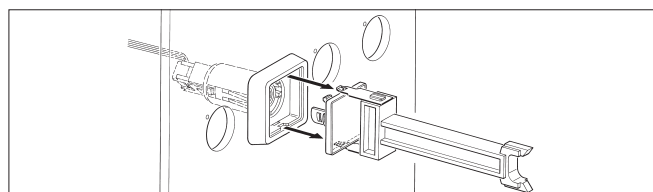
2. Pull out body/lens
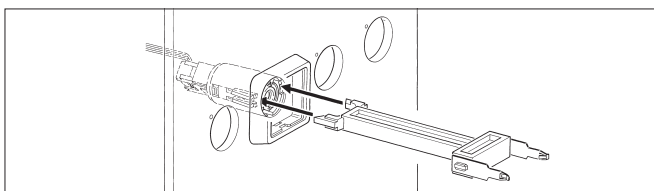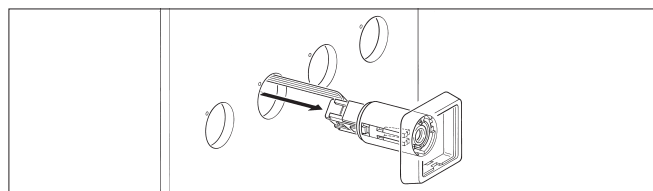
3. Release click lever

4. Pull out pushbutton/signal lamp with cable

Pushbuttons

RAFI
SOLUTIONS WITH PASSION

Dimensional drawing

With quick connector and flat-ribbon cable

Connection diagram (PCB top view)

1 + 4 = pushbutton connection 2 + 3 = lamp connection

With plug-in socket

Front panel top view

PCB top view

1+4 contact connection
2+3 lamp connection

Plug-in socket for PCB

PCB hole diagram

LUMOTAST 25

LUMOTAST 25 illuminated pushbutton

Pict.: with colourless lens | with blue lens | Panel cut-out
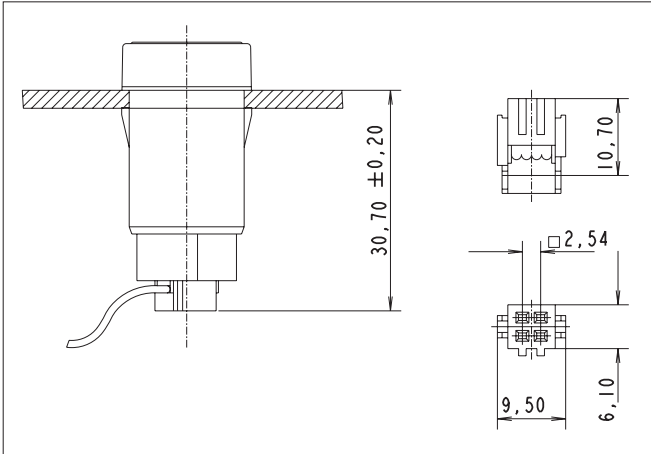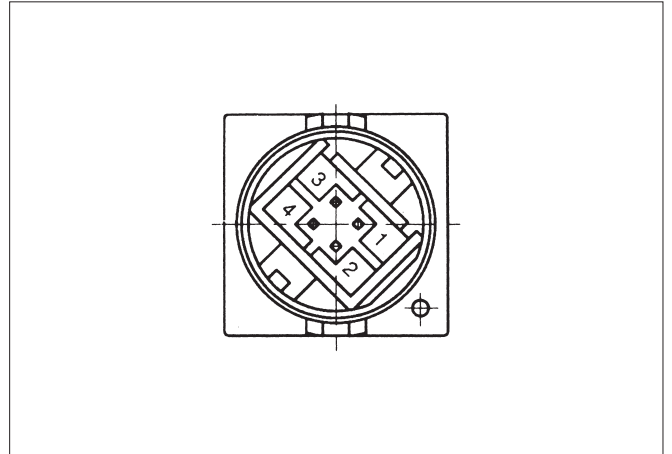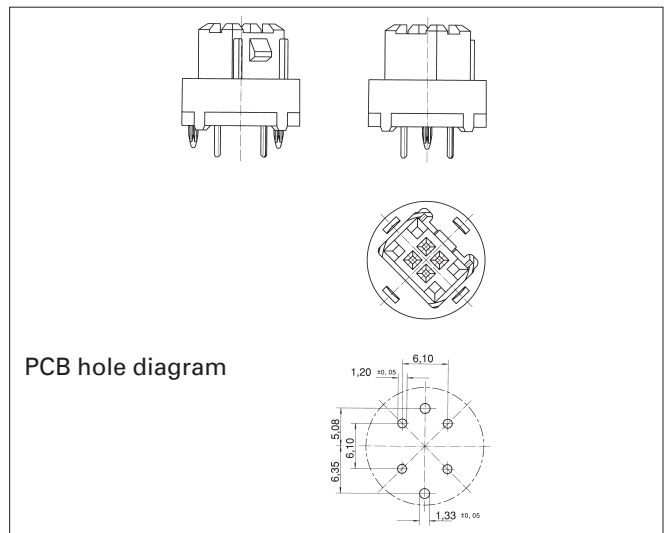
Technical data

General information
Form of lens	see order block
Colour of lens	see order block
Form of collar	square

Dimensions
Length of collar	25 mm
Width of collar	25 mm
Overall height	7.1 mm
Mounting depth with connector	30.7 mm
Mounting depth with plug-in socket	33.4 mm
Mounting hole	16.2 mm

Mechanical design
Mounting	see order block
Terminals	pin connector 4-pol./ plug-in socket
Contact system	snap-action contact
Contact function	momentary
Contact arrangement	1 NO
Contact materials	Au
Illuminability	yes
Lamp socket	Bi-Pin T 1/T $1^1/_4$

Mechanical characteristics
Operating force max.	6 N
Operating travel	3 mm
Switching travel	2 mm
Robustness min.	100 N

Electrical characteristics
Rated voltage AC/DC max.	42 V
Rated voltage AC/DC min.	0.02 V
Rated current AC/DC max.	100 mA
Rated current AC/DC min.	0.01 mA
Contact resistance max.	100 mΩ
Bouncing time max.	5 ms

Other specifications
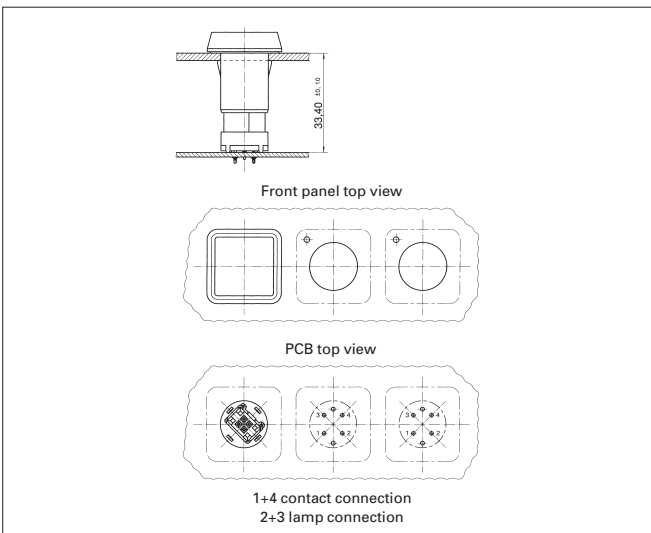|	
Operating life (operations)	1000000
Degree of protection from front side	IP65
Ambient temp. operating without lamp min.	-25 °C
Ambient temp. operating without lamp max.	+70 °C
Ambient temp. operating with lamp min.	-25 °C
Ambient temp. operating with lamp max.	+55 °C
Storage temperature min.	-40 °C
Storage temperature max.	+80 °C
Resistance to climate	according to IEC 600 68-2-3 and 2-30
Resistance at variable environment	according to IEC 60068-2-14 and 2-33
Weight	7 g

Typical accessories LUMOTAST 25 illuminated pushbutton

Description	Photo	Order no.	Additional accessories see page
Filament lamp, Bi-Pin T $1^1/_4$ base, 12 V		**1.90.180.474/0000**	5 - 5
Filament lamp, Bi-Pin T $1^1/_4$ base, 28 V		**1.90.180.475/0000**	5 - 5
LED Bi-Pin T 1 superbright, red, 24 V		**1.90.690.351/0000**	5 - 15
LED Bi-Pin T 1 superbright, green, 24 V		**1.90.690.352/0000**	5 - 15

Stock items are marked by **bold printed** order numbers.

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SOLUTIONS WITH PASSION

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Typical accessories LUMOTAST 25 illuminated pushbutton

Description	Photo	Order no.	Additional accessories see page
LED Bi-Pin T 1 superbright, yellow, 24 V		**1.90.690.353/0000**	5 - 15
LED Bi-Pin T 1 superbright, blue, 24 V		**1.90.690.354/0000**	5 - 15
LED Bi-Pin T 1 superbright, white, 24 V		**1.90.690.355/0000**	5 - 15
LED Bi-Pin T 1, red, 3 V		**1.90.691.026/0000**	5 - 15
LED Bi-Pin T 1, green, 3 V		**1.90.691.027/0000**	5 - 15
LED Bi-Pin T 1, yellow, 3 V		**1.90.691.028/0000**	5 - 15
Plug-in socket for PCB		**5.00.645.036/0000**	5 - 23
Cable (flat ribbon cable 10 cm with socket connector and male quick connector, AMP 4-pin)		**5.03.771.306/0000**	5 - 22
Disassembly tool for LUMOTAST 25, RAFIX 16		**5.05.800.042/0000**	2 - 60
Blanking cap complete with sealing disc and ring nut, square		**5.05.800.049/0100**	2 - 64
Label holder, flush, for square collar		**5.07.620.004/0000**	2 - 62
Flat ribbon cable, 4-wire, 1 m long		5.37.700.124/0000	5 - 23
Fixing spanner M 15, M 16		**5.58.002.019/0105**	5 - 21
Legend insert, blank, use only for transparent lenses		**5.70.635.000/2000**	
Legend label 23 x 16 for label holder, without legend		**5.73.111.000/0000**	
Socket connector, 4-pin		**5.92.025.368/0000**	5 - 22

Stock items are marked
by **bold printed** order numbers.

1

LUMOTAST 25 illuminated pushbutton with flush lens, "Click" quick-assembly feature

Pict.: with colourless lens

Panel cut-out
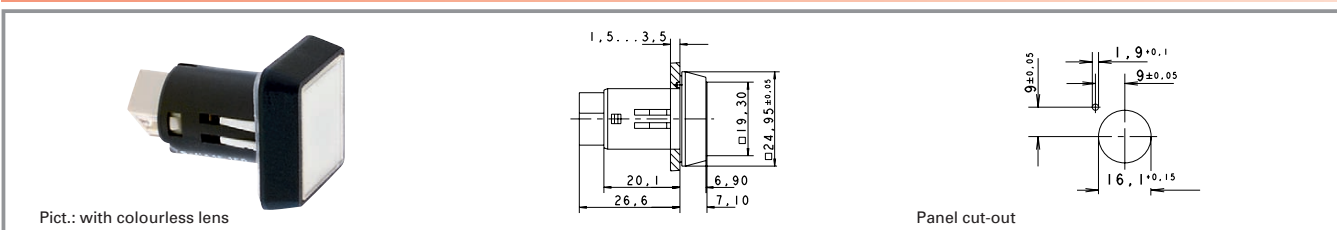
Contact function	Contact arrangement	Order no. without lens	Note
momentary	1 NO	**1.15.150.506/0000**	Please include the desired lens in your order.

LUMO 25

Technical data see page 1 - 22

Lenses:
Lens, square, transparent colourless: **5.49.077.011/1002**
Lens, square, transparent red: **5.49.077.011/1306**
Lens, square, transparent yellow: **5.49.077.011/1403**
Lens, square, transparent green: **5.49.077.011/1505**
Lens, square, transparent blue: **5.49.077.011/1607**

Note when using LED: A notch on the lamp socket identifies the cathode side.

LUMOTAST 25 illuminated pushbutton with flush lens, ring nut fixing

Pict.: with green lens

Panel cut-out
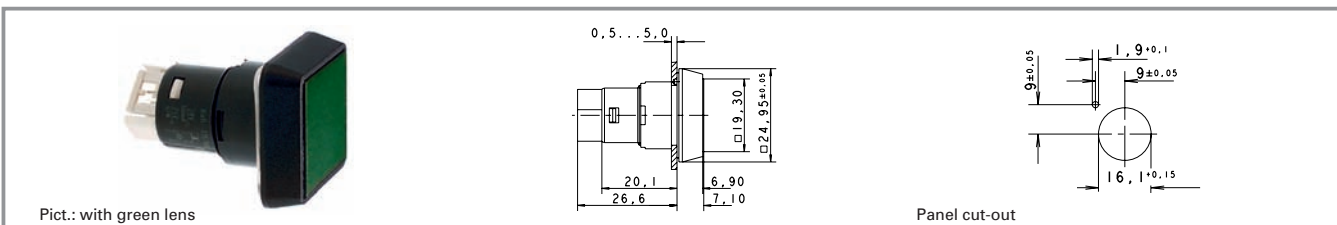
Contact function	Contact arrangement	Order no. without lens	Note
momentary	1 NO	**1.15.150.556/0000**	Please include the desired lens in your order.

Technical data see page 1 - 22

Lenses:
Lens, square, transparent colourless: **5.49.077.011/1002**
Lens, square, transparent red: **5.49.077.011/1306**
Lens, square, transparent yellow: **5.49.077.011/1403**
Lens, square, transparent green: **5.49.077.011/1505**
Lens, square, transparent blue: **5.49.077.011/1607**

Note when using LED: A notch on the lamp socket identifies the cathode side.

Stock items are marked
by **bold printed** order numbers.

Pushbuttons

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LUMOTAST 25 illuminated pushbutton with protruding lens, „Click" quick-assembly feature

Pict.: with red lens

Panel cut-out

Contact function	Contact arrangement	Order no. without lens	Note
momentary	1 NO	1.15.150.606/0000	Please include the desired lens in your order.

Technical data see page 1 - 22

Lenses:
Lens, square, transparent colourless: **5.49.077.012/1002**
Lens, square, transparent red: **5.49.077.012/1306**
Lens, square, transparent yellow: **5.49.077.012/1403**
Lens, square, transparent green: **5.49.077.012/1505**
Lens, square, transparent blue: **5.49.077.012/1607**

Note when using LED: A notch on the lamp socket identifies the cathode side.

LUMOTAST 25 illuminated pushbutton with protruding lens, ring nut fixing

Pict.: with blue lens

Panel cut-out
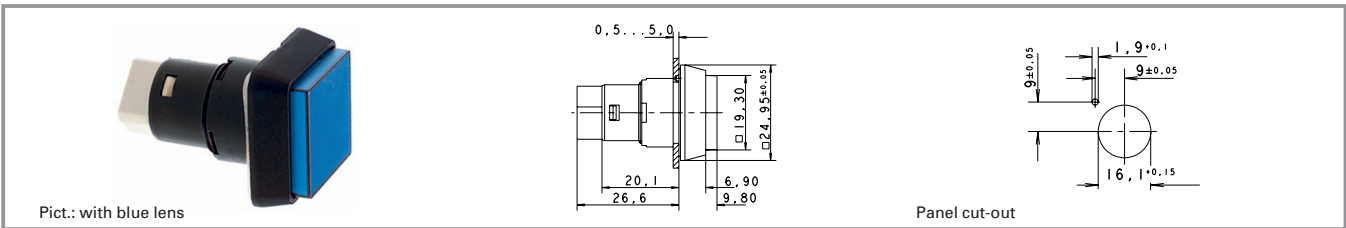
Contact function	Contact arrangement	Order no. without lens	Note
momentary	1 NO	1.15.150.656/0000	Please include the desired lens in your order.

Technical data see page 1 - 22

Lenses:
Lens, square, transparent colourless: **5.49.077.012/1002**
Lens, square, transparent red: **5.49.077.012/1306**
Lens, square, transparent yellow: **5.49.077.012/1403**
Lens, square, transparent green: **5.49.077.012/1505**
Lens, square, transparent blue: **5.49.077.012/1607**

Note when using LED: A notch on the lamp socket identifies the cathode side.

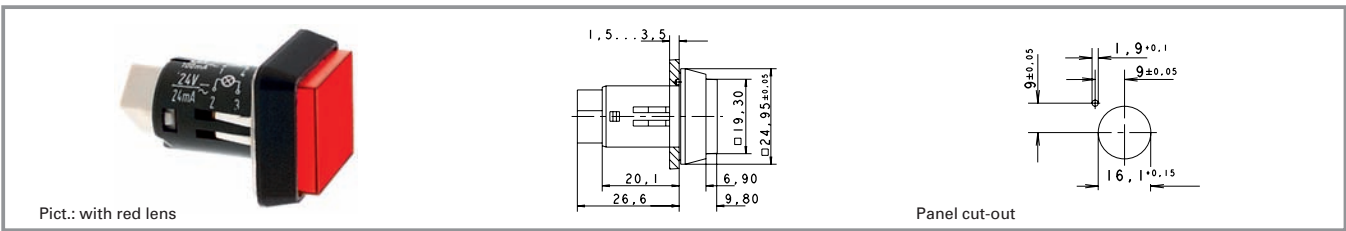**RAFI**
SOLUTIONS WITH PASSION

LUMOTAST 25 selector switch
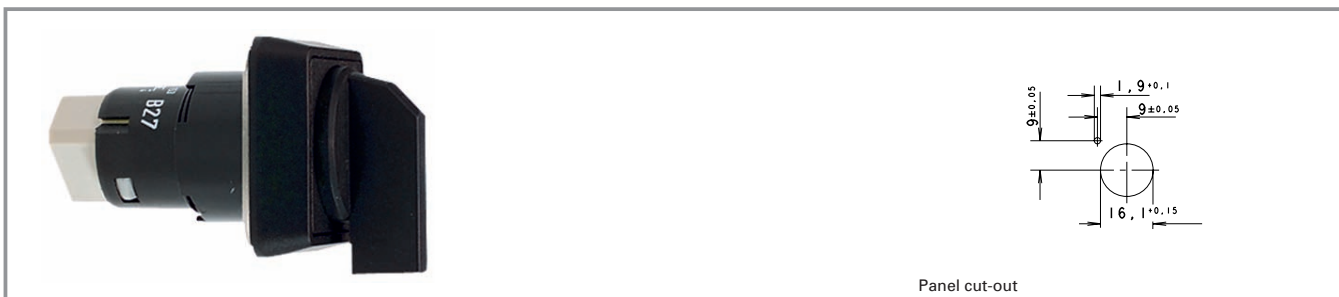
Panel cut-out

Technical data

General information
Form of lens	handle
Colour of handle	black opaque
Form of collar	square

Dimensions
Length of collar	25 mm
Width of collar	25 mm
Overall height	17 mm
Mounting depth with connector	30.7 mm
Mounting depth with plug-in socket	33.4 mm
Mounting hole	16.2 mm

Mechanical design
Mounting	see order block
Terminals	pin connector 4-pol./ plug-in socket
Contact system	snap-action contact
Contact function	see order block
Contact arrangement	1 NO
Contact materials	Au
Illuminability	no

Mechanical characteristics
Operating force min.	0,03 Nm
Rotating angle	see order block
Robustness max.	1,5 Nm

Electrical characteristics
Rated voltage AC/DC max.	42 V
Rated voltage AC/DC min.	0.02 V
Rated current AC/DC max.	100 mA
Rated current AC/DC min.	0.01 mA
Contact resistance max.	100 mΩ
Bouncing time max.	5 ms

Other specifications
Operating life (operations)	500000
Degree of protection from front side	IP65
Ambient temp. operating min.	-25 °C
Ambient temp. operating max.	+70 °C
Storage temperature min.	-40 °C
Storage temperature max.	+80 °C
Resistance to constant environment	according to IEC 600 68-2-3 and 2-30
Resistance at variable environment	according to IEC 60068-2-14 and 2-33
Weight	8 g

Typical accessories LUMOTAST 25 selector switch
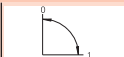
Description	Photo	Order no.	Additional accessories see page
Plug-in socket for PCB		**5.00.645.036/0000**	5 - 23
Cable (flat ribbon cable 10 cm with socket connector and male quick connector, AMP 4-pin)		**5.03.771.306/0000**	5 - 22
Blanking cap complete with sealing disc and ring nut, square		**5.05.800.049/0100**	2 - 64
Label holder, flush, for square collar		**5.07.620.004/0000**	2 - 62

Stock items are marked
by **bold printed** order numbers.

Pushbuttons

Typical accessories LUMOTAST 25 selector switch

Description	Photo	Order no.	Additional accessories see page
Flat ribbon cable, 4-wire, 1 m long		5.37.700.124/0000	5 - 23
Fixing spanner M 15, M 16		**5.58.002.019/0105**	5 - 21
Socket connector, 4-pin		**5.92.025.368/0000**	5 - 22

LUMOTAST 25 selector switch, ring nut fixing
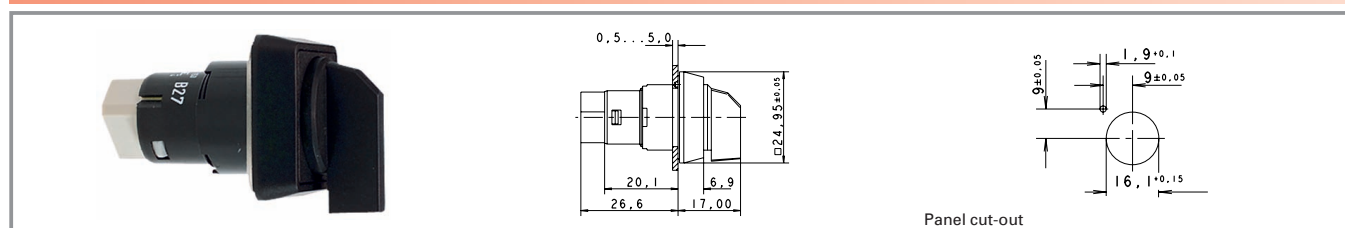
Panel cut-out

Contact arrangement	Contact function	Rotating angle		Form of lens	Order no.
1 NO	latching	right, 1 x 90°		handle	1.15.153.106/0100

Technical data see page 1 - 26

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SOLUTIONS WITH PASSION

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LUMO 25

LUMOTAST 25 keylock switch
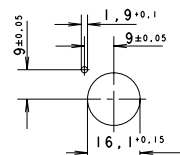
Panel cut-out

Technical data

General information
Colour of lens	black opaque
Form of collar	square

Dimensions
Length of collar	25 mm
Width of collar	25 mm
Overall height	32.3 mm
Mounting depth with connector	30.7 mm
Mounting depth with plug-in socket	33.4 mm
Mounting hole	16.2 mm

Mechanical design
Mounting	ring nut
Terminals	pin connector 4-pol./ plug-in socket
Contact system	snap-action contact
Contact function	latching
Contact arrangement	1 NO
Contact materials	Au
Illuminability	no
Lamp socket	no
Lock	cylinder lock
Wafers	8 pins
Lock type	5201
Number of locking positions	10000
Main key	yes
Symmetric key	yes
Key removal position	see order block

Mechanical characteristics
Operating force max.	1,5 Nm
Rotating angle	90°

Electrical characteristics
Rated voltage AC/DC max.	42 V
Rated voltage AC/DC min.	0.02 V
Rated current AC/DC max.	100 mA
Rated current AC/DC min.	0.01 mA
Contact resistance max.	100 mΩ
Bouncing time max.	5 ms

Other specifications
Operating life (operations)	50000
Degree of protection from front side	IP65
Ambient temp. operating min.	-25 °C
Ambient temp. operating max.	+70 °C
Storage temperature min.	-40 °C
Storage temperature max.	+80 °C
Resistance to constant environment	according to IEC 600 68-2-3 and 2-30
Resistance at variable environment	according to IEC 60068-2-14 and 2-33
Weight	20 g

Typical accessories LUMOTAST 25 keylock switch

Description	Photo	Order no.	Additional accessories see page
Plug-in socket for PCB		**5.00.645.036/0000**	5 - 23
Cable (flat ribbon cable 10 cm with socket connector and male quick connector, AMP 4-pin)		**5.03.771.306/0000**	5 - 22
Blanking cap complete with sealing disc and ring nut, square		**5.05.800.049/0100**	2 - 64

Stock items are marked by **bold printed** order numbers.

Pushbuttons

Typical accessories LUMOTAST 25 keylock switch

Description	Photo	Order no.	Additional accessories see page
Label holder, flush, for square collar		**5.07.620.004/0000**	2 - 62
Flat ribbon cable, 4-wire, 1 m long		5.37.700.124/0000	5 - 23
Fixing spanner M 15, M 16		**5.58.002.019/0105**	5 - 21
Spare key		5.58.015.201/0000	
Legend label 23 x 16 for label holder, without legend		**5.73.111.000/0000**	
Socket connector, 4-pin		**5.92.025.368/0000**	5 - 22

LUMOTAST 25 keylock switch

1,5...3,5

20,1 6,90
26,6 32,3

9±0,05 1,9 +0,1
9±0,05
16,1 +0,15

Panel cut-out
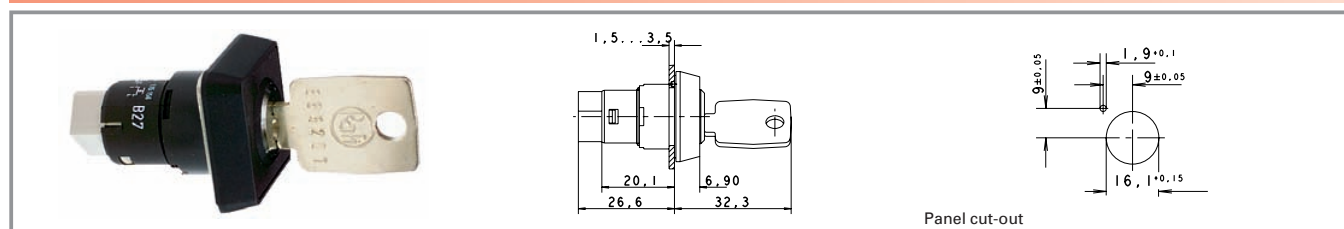
Contact arrangement	Contact function	Rotating angle		Key removal position	Colour of lens	Order no.
1 NO	latching	90°		0	black opaque	**1.15.156.001/0000**
1 NO	latching	90°		0 + 1	black opaque	**1.15.156.011/0000**

Technical data see page 1 - 28

Included: 2 keys.

LUMOTAST 25

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LUMO
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LUMOTAST 25 emergency stop pushbutton

Pict.: black collar   yellow collar   Panel cut-out

Technical data

General information

Colour of lens	opaque red
Form of collar	square
Colour of collar	see order block

Dimensions

Length of collar	25 mm
Width of collar	25 mm
Overall height	18.5 mm
Mounting depth with connector	30.7 mm
Mounting depth with plug-in socket	33.4 mm
Mounting hole	16.2 mm

Mechanical design

Mounting	ring nut
Terminals	pin connector 4-pol./ plug-in socket
Contact system	snap-action contact
Contact function	latching
Contact arrangement	2 NC (forcibly actuated)
Contact materials	Au
Illuminability	no

Mechanical characteristics

Operating force max.	10 N
Operating travel	2.6 mm
Switching travel	2 mm
Robustness min.	100 N

Electrical characteristics

Rated voltage AC/DC max.	25 V
Rated voltage AC/DC min.	0.02 V
Rated current AC/DC max.	100 mA (1A short-circuit current)
Rated current AC/DC min.	0.01 mA
Contact resistance max.	100 mΩ
Bouncing time max.	10 ms
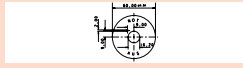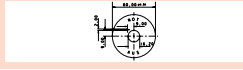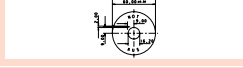
Other specifications

Operating life	15000
Degree of protection from front side	IP65
Ambient temp. operating min.	-25 °C
Ambient temp. operating max.	+70 °C
Storage temperature min.	-40 °C
Storage temperature max.	+80 °C
Resistance to constant environment	according to IEC 600 68-2-3 and 2-30
Resistance at variable environment	according to IEC 60068-2-14 and 2-33
Weight	9 g
Approvals	TÜV/UL according to EN 60947-5-5 and -5-1/A2, UL 508

Typical accessories LUMOTAST 25 emergency stop pushbutton

| Description	Photo	Order no.	Additional accessories see page
Plug-in socket for PCB		**5.00.645.036/0000**	5 - 23
Cable (flat ribbon cable 10 cm with socket connector and male quick connector, AMP 4-pin)		**5.03.771.306/0000**	5 - 22
Blanking cap complete with sealing disc and ring nut, square		**5.05.800.049/0100**	2 - 64
Label holder, flush, for square collar		**5.07.620.004/0000**	2 - 62

Stock items are marked by **bold printed** order numbers.

Typical accessories LUMOTAST 25 emergency stop pushbutton

Description	Photo	Order no.	Additional accessories see page
Flat ribbon cable, 4-wire, 1 m long		5.37.700.124/0000	5 - 23
Fixing spanner M 15, M 16		**5.58.002.019/0105**	5 - 21
Legend label 23 x 16 for label holder, without legend		**5.73.111.000/0000**	
Emergency stop label, yellow, adhesive, round 60 mm, without legend		**5.76.204.425/0400**	
Emergency stop label, yellow, adhesive, round 60 mm, with legend „NOT-AUS"		**5.76.204.426/0400**	
Emergency stop label, yellow, adhesive, round 60 mm, with legend „ARRET-D'URGENCE"		5.76.204.427/0400	
Emergency stop label, yellow, adhesive, round 60 mm, with legend „EMERGENCY-STOP"		**5.76.204.428/0400**	
Emergency stop label, yellow, adhesive, round 60 mm, with legend „ARRESTO-D'EMERGENZA"		5.76.204.429/0400	
Socket connector, 4-pin		**5.92.025.368/0000**	5 - 22

LUMOTAST 25 emergency stop pushbutton, ring nut fixing

Pict.: black collar

Panel cut-out

Contact function	Contact arrangement	Colour of collar	Order no.	Order no. single parts	
				Housing	Lens
latching	2 NC (forcibly actuated)	black	**1.15.154.006/0301**	-	-
latching	2 NC (forcibly actuated)	yellow	**1.15.154.016/0301**	-	-

Technical data see page 1 - 30

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LUMOTAST 25 signal lamp

Pict.: with red lens

Panel cut-out
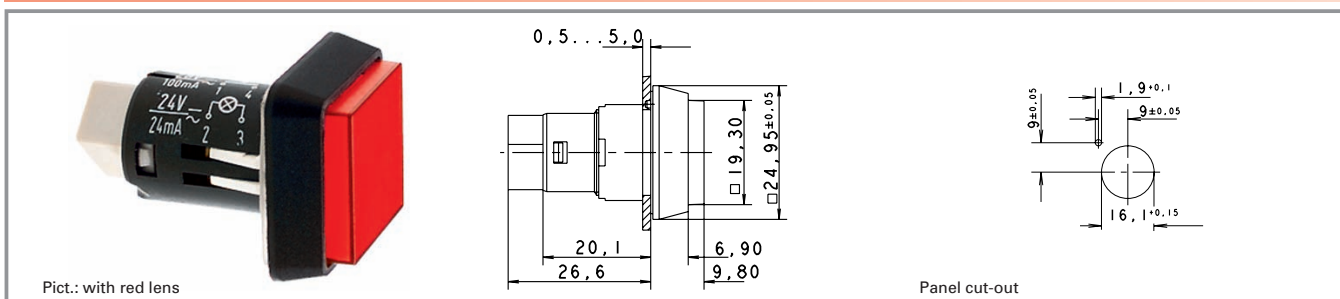
Technical data

General information
Form of lens   square
Colour of lens   see order block

Dimensions
Length of collar   25 mm
Width of collar   25 mm
Overall height   9.8 mm
Mounting depth with
connector   30.7 mm
Mounting depth with
plug-in socket   33.4 mm
Mounting hole   16.2 mm

Mechanical design
Mounting   see order block
Terminals   pin connector 4-pol./
plug-in socket

Lamp socket   Bi-Pin T 1/T 1$\frac{1}{4}$
Lamp   filament lamp / LED

Electrical characteristics
Voltage limit max.   24 V
Power limit max.   0,7 W

Other specifications
Degree of protection
from front side   IP65
Weight   7 g
Ambient temp. operating
min.   -25 °C
Ambient temp. operating
max.   +70 °C
Storage temperature min.   -40 °C
Storage temperature max.   +80 °C

Typical accessories LUMOTAST 25 signal lamp

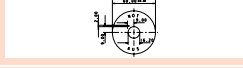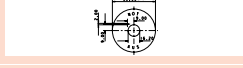| Description	Photo	Order no.	Additional accessories see page
Filament lamp, Bi-Pin T 1$\frac{1}{4}$ base, 12 V		**1.90.180.474/0000**	5 - 5
Filament lamp, Bi-Pin T 1$\frac{1}{4}$ base, 28 V		**1.90.180.475/0000**	5 - 5
LED Bi-Pin T 1 superbright, red, 24 V		**1.90.690.351/0000**	5 - 15
LED Bi-Pin T 1 superbright, green, 24 V		**1.90.690.352/0000**	5 - 15
LED Bi-Pin T 1 superbright, yellow, 24 V		**1.90.690.353/0000**	5 - 15
LED Bi-Pin T 1 superbright, blue, 24 V		**1.90.690.354/0000**	5 - 15
LED Bi-Pin T 1 superbright, white, 24 V		**1.90.690.355/0000**	5 - 15
LED Bi-Pin T 1, red, 3 V		**1.90.691.026/0000**	5 - 15
LED Bi-Pin T 1, green, 3 V		**1.90.691.027/0000**	5 - 15

Stock items are marked
by **bold printed** order numbers.

Typical accessories LUMOTAST 25 signal lamp

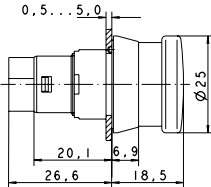| Description	Photo	Order no.	Additional accessories see page
LED Bi-Pin T 1, yellow, 3 V		**1.90.691.028/0000**	5 - 15
Plug-in socket for PCB		**5.00.645.036/0000**	5 - 23
Cable (flat ribbon cable 10 cm with socket connector and male quick connector, AMP 4-pin)		**5.03.771.306/0000**	5 - 22
Disassembly tool for LUMOTAST 25, RAFIX 16		**5.05.800.042/0000**	2 - 60
Blanking cap complete with sealing disc and ring nut, square		**5.05.800.049/0100**	2 - 64
Label holder, flush, for square collar		**5.07.620.004/0000**	2 - 62
Flat ribbon cable, 4-wire, 1 m long		5.37.700.124/0000	5 - 23
Fixing spanner M 15, M 16		**5.58.002.019/0105**	5 - 21
Legend insert, blank, use only for transparent lenses		**5.70.635.000/2000**	
Legend label 23 x 16 for label holder, without legend		**5.73.111.000/0000**	
Socket connector, 4-pin		**5.92.025.368/0000**	5 - 22

LUMOTAST 25 signal lamp, 24 V, "Click" quick-assembly feature
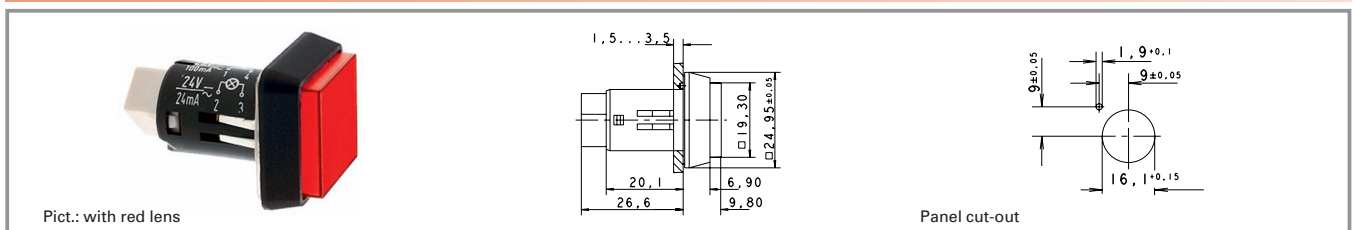
Pict.: with red lens

Panel cut-out

Voltage limit max.	Power limit max.	Lamp socket	Order no. without lens	Note
24 V	0.7 W	Bi-Pin T 1/T 1¹⁄₄	1.65.122.906/0000	Please include the desired lens in your order.

Technical data see page 1 - 32

Lenses:
Lens, square, transparent colourless: **5.49.077.014/1002**
Lens, square, transparent red: **5.49.077.014/1306**
Lens, square, transparent yellow: **5.49.077.014/1403**
Lens, square, transparent green: **5.49.077.014/1505**
Lens, square, transparent blue: **5.49.077.014/1607**

Do not press in lens in disassembled condition. Note when using a LED: A notch on the lamp identifies the cathode side.

RAFI
SOLUTIONS WITH PASSION

1

LUMOTAST 25 signal lamp, 24 V, ring nut fixing
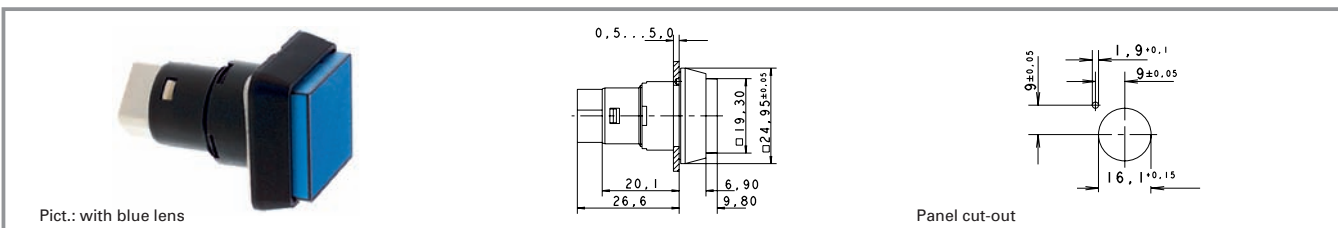
Pict.: with blue lens

Panel cut-out

LUMO 25

Voltage limit max.	Power limit max.	Lamp socket	Order no. without lens	Note
24 V	0.7 W	Bi-Pin T 1/T 1$\frac{1}{4}$	1.65.122.956/0000	Please include the desired lens in your order.

Technical data see page 1 - 32

Lenses:
Lens, square, transparent colourless: **5.49.077.014/1002**
Lens, square, transparent red: **5.49.077.014/1306**
Lens, square, transparent yellow: **5.49.077.014/1403**
Lens, square, transparent green: **5.49.077.014/1505**
Lens, square, transparent blue: **5.49.077.014/1607**

Do not press in lens in disassembled condition. Note when using LED: A notch on the lamp socket identifies the cathode side.

Stock items are marked
by **bold printed** order numbers.
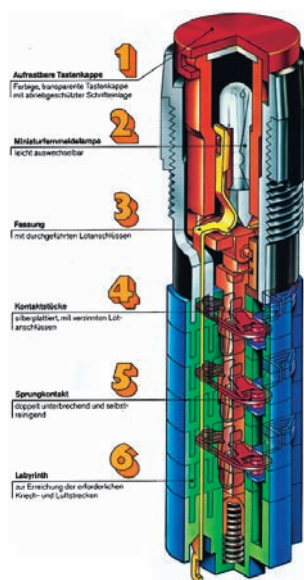
General data

LUMOTAST 75 IP40 pushbutton range
Illuminated pushbuttons, signal lamps and keylock switches
• Mounting hole diameter 16.2 mm
• Degree of protection IP40
• Solder terminals for the following wire cross-sections:
  - Installed 0.5 mm² max.
  - Factory terminated 0.35 mm² max.
• 250 V/4 A max.
• 2 NC + 2 NO max. (3 NC + 3 NO on request)
• Lamp socket T 4.5

Content

RAFI
SOLUTIONS WITH PASSION

1

LUMOTAST 75 illuminated pushbutton IP40

Pict.: with colourless lens

8 max.

M16×1 ⌀15 ⌀18

16.2⁺⁰·²

41.5 (1Ö+1S)
49.5 (2O+2S)
57.5 (3O+3S)

5

7.5

Mounting hole

Technical data

LUMO 75 (40)

General information
Form of lens	see order block
Form of collar	see order block
Colour of collar	see order block

Dimensions
Length of collar	see order block
Width of collar	see order block
Diameter of collar	see order block
Overall height	7.5 mm
Mounting depth	41.5/49.5/57.5 mm
Mounting hole	16.2 mm

Mechanical design
Mounting	ring nut
Terminals	solder terminals
Contact system	snap-action bridge contact
Contact function	see order block
Contact arrangement	see order block
Contact materials	Ag
Illuminability	yes
Lamp socket	T 4.5

Mechanical characteristics
Operating force max.	3 ... 6.5 N
Operating travel	2.7 mm
Switching travel NC	1.6 mm
Switching travel NO	0.9 mm
Robustness min.	100 N

Electrical characteristics
Rated voltage AC max.	250 V
Rated voltage DC max.	220 V
Rated voltage AC/DC min.	12 V

Rated current AC max.	4 A
Rated current DC max.	0.2 A
Rated current AC/DC min.	5 mA
Contact resistance acc. to life max.	200 mΩ
Protection class	II

Other specifications
Operating life, at 250 V/2 A (operations)	200000 (momentary)
Operating life, at 250 V/4 A (operations)	60000 (momentary), 10000 (latching)
Degree of protection from front side	IP40
Ambient temp. operating min.	-25 °C
Ambient temp. operating without lamp max.	+70 °C
Ambient temp. operating with lamp max.	+55 °C
Storage temperature min.	-40 °C
Storage temperature max.	+80 °C
Resistance to constant environment	according to IEC 600 68-2-3 and 2-30
Resistance at variable environment	according to IEC 60068-2-14 and 2-33
Approvals	ENEC 25 T 55 (70), UL, CSA
Flame class acc. to UL 94	V 1
Hot wire ignition acc. to IEC 60695-2-1	yes

Typical accessories LUMOTAST 75 illuminated pushbutton IP40

Description	Photo	Order no.	Additional accessories see page
Filament lamp, T 4.5 base, 12 V		**1.90.100.022/0000**	5 - 6
Filament lamp, T 4.5 base, 24 V		**1.90.100.023/0000**	5 - 6
LED T 4.5 superbright, red, 24 V		**1.90.690.331/0000**	5 - 16

Stock items are marked by **bold printed** order numbers.

RAFI
SOLUTIONS WITH PASSION

Typical accessories LUMOTAST 75 illuminated pushbutton IP40

Description	Photo	Order no.	Additional accessories see page
LED T 4.5 superbright, green, 24 V		**1.90.690.332/0000**	5 - 16
LED T 4.5 superbright, yellow, 24 V		**1.90.690.333/0000**	5 - 16
LED T 4.5 superbright, blue, 24 V		**1.90.690.334/0000**	5 - 16
LED T 4.5 superbright, white, 24 V		**1.90.690.335/0000**	5 - 16
LED T 4.5, red, 2-3 V (use external resistor)		**1.90.692.001/0000**	5 - 16
LED T 4.5, green, 2-3 V (use external resistor)		**1.90.692.002/0000**	5 - 16
LED T 4.5, yellow, 2-3 V (use external resistor)		**1.90.692.003/0000**	5 - 16
Lamp extractor for lamp diameter 4 mm		**1.90.900.002/0000**	5 - 20
Lamp extractor for lamp diameter 5-6 mm		**1.90.900.004/0000**	5 - 20
Protective cap (for 18 x 24 collar)		5.05.800.027/0000	5 - 24
Blanking cap, black, to cover spare holes, dimensions 18 x 18 mm		**5.52.006.020/0103**	5 - 26
Blanking cap, black, to cover spare holes, dimensions 18 x 24 mm		**5.52.006.021/0100**	5 - 26
Blanking cap, black, to cover spare holes, round 18 mm		**5.52.006.022/0100**	5 - 26
Fixing spanner M 15, M 16		**5.58.002.019/0105**	5 - 21

1

LUMO
75 (40)

Stock items are marked
by **bold printed** order numbers.

1

LUMO 75 (40)

LUMOTAST 75 illuminated pushbutton IP40, protruding lens, round collar

Pict.: with colourless lens
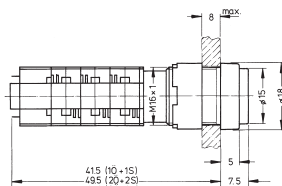
Mounting hole

Contact arrangement	Contact function	Colour of collar	Order no. without lens	Note
1 NC + 1 NO	momentary	black	**1.15.108.451/0000**	Please include the desired lens and diffuser in your order.
1 NC + 1 NO	latching	black	**1.15.108.551/0000**	Please include the desired lens and diffuser in your order.
2 NC + 2 NO	momentary	black	1.15.108.452/0000	Please include the desired lens and diffuser in your order.
2 NC + 2 NO	latching	black	1.15.108.552/0000	Please include the desired lens and diffuser in your order.

Technical data see page 1 - 36

Lenses:
Lens, round, transparent colourless, for filament lamp or LED: **5.49.257.011/1002**
Lens, round, transparent red, for LED: **5.49.257.011/1301**
Lens, round, transparent red, for filament lamp: **5.49.257.011/1303**
Lens, round, transparent yellow, for filament lamp or LED: **5.49.257.011/1402**
Lens, round, transparent green, for filament lamp: **5.49.257.011/1502**
Lens, round, transparent green, for LED: **5.49.257.011/1503**
Lens, round, transparent blue, for filament lamp: **5.49.257.011/1601**

Accessories:
Diffuser, round, for filament lamp, without legend: **5.72.050.000/0202**
Diffuser, round, for LED, without legend: **5.72.050.000/0214**

Stock items are marked
by **bold printed** order numbers.

Pushbuttons

RAFI
SOLUTIONS WITH PASSION

1

LUMOTAST 75 illuminated pushbutton IP40, flush lens, square collar

Pict.: with red lens, without threaded ring

Mounting hole

Contact arrangement	Contact function	Colour of collar	Order no. without lens	Note
1 NC + 1 NO	momentary	black	**1.15.108.251/0000**	Please include the desired lens and diffuser in your order.
1 NC + 1 NO	latching	black	**1.15.108.351/0000**	Please include the desired lens and diffuser in your order.
2 NC + 2 NO	momentary	black	1.15.108.252/0000	Please include the desired lens and diffuser in your order.
2 NC + 2 NO	latching	black	1.15.108.352/0000	Please include the desired lens and diffuser in your order.

Technical data see page 1 - 36

Lenses:
Lens, rectangular, transparent colourless, for filament lamp or LED: **5.49.275.036/1002**
Lens, rectangular, transparent red, for LED: **5.49.275.036/1301**
Lens, rectangular, transparent red, for filament lamp: **5.49.275.036/1303**
Lens, rectangular, transparent yellow, for filament lamp or LED: **5.49.275.036/1402**
Lens, rectangular, transparent green, for filament lamp: **5.49.275.036/1502**
Lens, rectangular, transparent green, for LED: **5.49.275.036/1503**
Lens, rectangular, transparent blue, for filament lamp: **5.49.275.036/1601**

Accessories:
Sealing cap IP65 (for 18 x 18 collar): 5.05.200.009/0000
Protective cap (for 18 x 18 collar): 5.05.800.030/0000
Diffuser, square, for filament lamp, without legend: **5.73.013.000/0202**
Diffuser, square, for LED, without legend: **5.73.013.000/0214**

LUMO
75 (40)

RAFI
SOLUTIONS WITH PASSION

1

LUMOTAST 75 illuminated pushbutton IP40, flush lens, rectangular collar

Pict.: with green lens

Contact arrangement	Contact function	Colour of collar	Order no. without lens	Note
1 NC + 1 NO	momentary	black	**1.15.108.051/0000**	Please include the desired lens and diffuser in your order.
1 NC + 1 NO	latching	black	**1.15.108.151/0000**	Please include the desired lens and diffuser in your order.
2 NC + 2 NO	momentary	black	1.15.108.052/0000	Please include the desired lens and diffuser in your order.
2 NC + 2 NO	latching	black	1.15.108.152/0000	Please include the desired lens and diffuser in your order.

LUMO 75 (40)

Technical data see page 1 - 36

Lenses:
Lens, rectangular, transparent colourless, for filament lamp or LED: **5.49.275.032/1002**
Lens, rectangular, transparent red, for LED: **5.49.275.032/1301**
Lens, rectangular, transparent red, for filament lamp: **5.49.275.032/1303**
Lens, rectangular, transparent yellow, for filament lamp or LED: **5.49.275.032/1402**
Lens, rectangular, transparent green, for filament lamp: **5.49.275.032/1502**
Lens, rectangular, transparent green, for LED: **5.49.275.032/1503**
Lens, rectangular, transparent blue, for filament lamp: **5.49.275.032/1601**

Accessories:
Sealing cap IP65 (for 18 x 24 collar): 5.05.200.008/0000
Protective cap (for 18 x 24 collar): 5.05.800.027/0000
Diffuser, rectangular, for filament lamp, without legend: **5.73.012.000/0202**
Diffuser, rectangular, for LED, without legend: **5.73.012.000/0214**

**Stock items** are marked by **bold printed** order numbers.

Pushbuttons

1

LUMOTAST 75 illuminated pushbutton IP40, protruding lens, square collar

Pict.: with colourless lens

Mounting hole
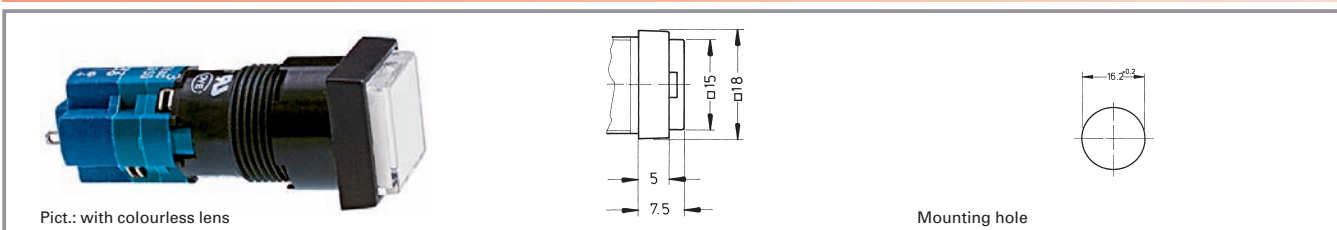
Contact arrangement	Contact function	Colour of collar	Order no. without lens	Note
1 NC + 1 NO	momentary	black	1.15.108.256/0000	Please include the desired lens and diffuser in your order.
1 NC + 1 NO	latching	black	1.15.108.356/0000	Please include the desired lens and diffuser in your order.
2 NC + 2 NO	momentary	black	1.15.108.257/0000	Please include the desired lens and diffuser in your order.
2 NC + 2 NO	latching	black	1.15.108.357/0000	Please include the desired lens and diffuser in your order.

LUMO 75 (40)

Technical data see page 1 - 36

Lenses:
Lens, rectangular, transparent colourless, for filament lamp or LED: **5.49.275.036/1002**
Lens, rectangular, transparent red, for LED: **5.49.275.036/1301**
Lens, rectangular, transparent red, for filament lamp: **5.49.275.036/1303**
Lens, rectangular, transparent yellow, for filament lamp or LED: **5.49.275.036/1402**
Lens, rectangular, transparent green, for filament lamp: **5.49.275.036/1502**
Lens, rectangular, transparent green, for LED: **5.49.275.036/1503**
Lens, rectangular, transparent blue, for filament lamp: **5.49.275.036/1601**

Accessories:
Sealing cap IP 65 (for 18 x 18 collar): 5.05.200.009/0000
Protective cap (for 18 x 18 collar): 5.05.800.030/0000
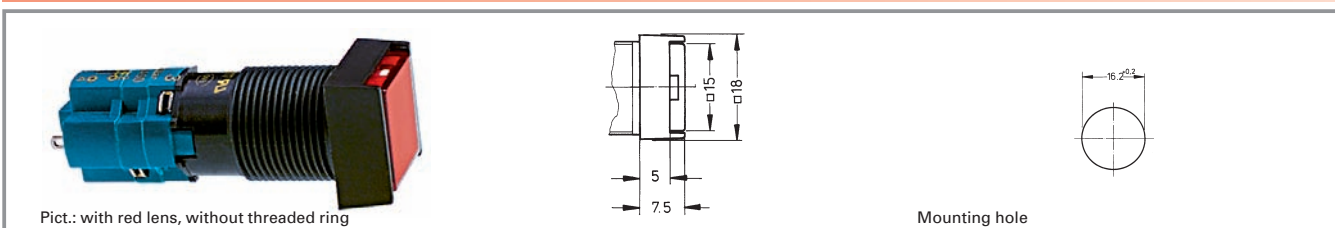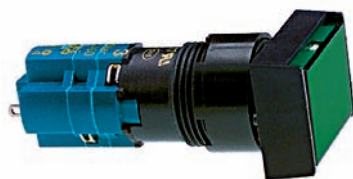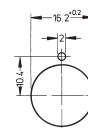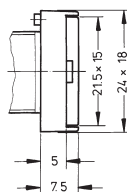Diffuser, square, for filament lamp, without legend: **5.73.013.000/0202**
Diffuser, square, for LED, without legend: **5.73.013.000/0214**

RAFI
SOLUTIONS WITH PASSION

1

LUMOTAST 75 keylock switch IP40

Mounting hole

Technical data

General information
Form of lens	see order block
Colour of collar	see order block
Form of collar	see order block

Dimensions
Length of collar	see order block
Diameter of collar	see order block
Width of collar	see order block
Overall height (without key)	7.5 mm
Mounting depth	see order block
Mounting hole	16.2 mm

Mechanical design
Mounting	ring nut
Terminals	solder terminals
Contact system	snap-action bridge contact
Contact function	see order block
Contact arrangement	see order block
Contact materials	Ag
Illuminability	no
Lock	cylinder lock
Wafers	4 pins
Lock type	1D 21
Number of locking positions	45
Main key	no
Symmetric key	no
Key removal position	see order block

Mechanical characteristics
Rotating angle	see order block

Electrical characteristics
Rated voltage AC max.	250 V

Rated voltage DC max.	220 V
Rated voltage AC/DC min.	12 V
Rated current AC max.	4 A
Rated current DC max.	0.02 A
Rated current AC/DC min.	5 mA
Contact resistance acc. to life max.	200 mΩ
Bouncing time max.	10 ms
ESD-strength min.	14 kV

Other specifications
Operating life, at 250 V/2 A (operations)	50000 (momentary)
Operating life, at 250 V/4 A (operations)	50000 (momentary)
Degree of protection from front side	IP40
Ambient temp. operating min.	-25 °C
Ambient temp. operating max.	+70 °C
Storage temperature min.	-40 °C
Storage temperature max.	+80 °C
Resistance to constant environment	according to IEC 600 68-2-3 and 2-30
Resistance at variable environment	according to IEC 60068-2-14 and 2-33
Weight max.	35 g
Approvals	ENEC 25 T 55 (70), UL, CSA
Flame class acc. to UL 94	V 1
Hot wire ignition acc. to IEC 60695-2-1	yes

Typical accessories LUMOTAST 75 keylock switch IP40

Description	Photo	Order no.	Additional accessories see page
Blanking cap, black, to cover spare holes, dimensions 18 x 24 mm		**5.52.006.021/0100**	5 - 26
Blanking cap, black, to cover spare holes, round 18 mm		**5.52.006.022/0100**	5 - 26
Fixing spanner M 15, M 16		**5.58.002.019/0105**	5 - 21

Stock items are marked by **bold printed** order numbers.

Pushbuttons

Typical accessories LUMOTAST 75 keylock switch IP40

Description	Photo	Order no.	Additional acces-sories see page
Key cap for LUMO 75		5.58.002.030/0000	
Spare key for LUMO 75 (1 key)		5.58.004.721/0000	

LUMOTAST 75 keylock switch IP40, round collar
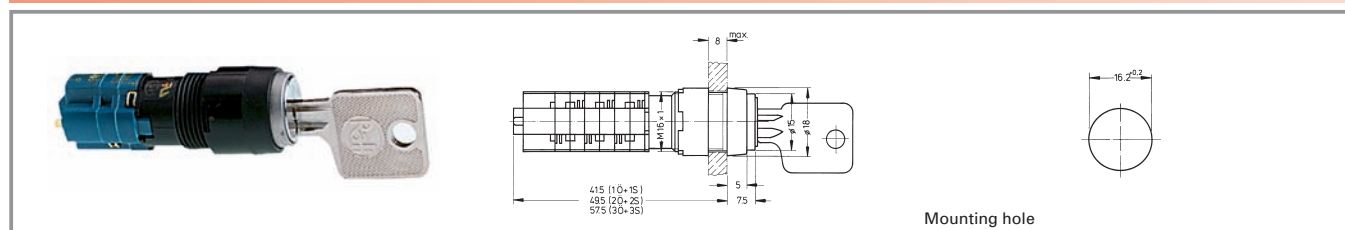
Mounting hole

Contact arrange-ment	Contact function	Rotating angle		Key removal position	Colour of collar	Order no.
1 NC + 1 NO	latching	90°		0	black	**1.15.108.851/0000**
1 NC + 1 NO	latching	90°		0+1	black	1.15.108.911/0000
1 NC + 1 NO	momentary	45°		0	black	1.15.108.941/0000
2 NC + 2 NO	latching	90°		0	black	1.15.108.852/0000
2 NC + 2 NO	latching	90°		0+1	black	1.15.108.912/0000

Technical data see page 1 - 42

Included: 2 keys.
Other lock variants and contacts available on request.

RAFI
SOLUTIONS WITH PASSION

1

LUMOTAST 75 keylock switch IP40, rectangular collar
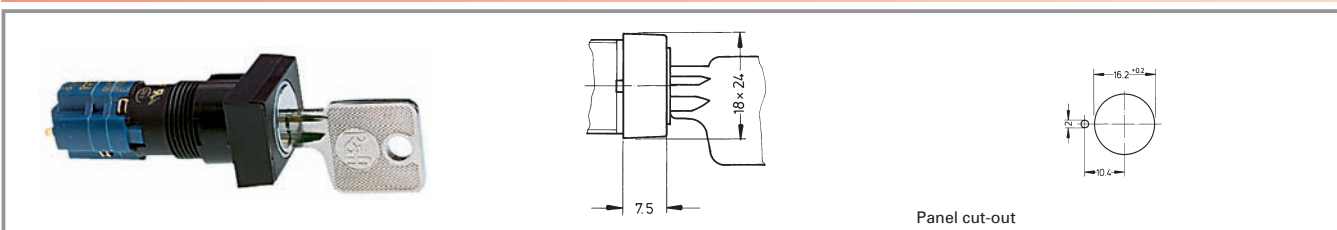
Panel cut-out

LUMO 75 (40)

Contact arrangement	Contact function	Rotating angle		Key removal position	Colour of collar	Order no.
1 NC + 1 NO	latching	90°		0	black	**1.15.108.571/0100**
1 NC + 1 NO	latching	90°		0+1	black	**1.15.108.631/0100**
1 NC + 1 NO	momentary	45°		0	black	1.15.108.661/0100
2 NC + 2 NO	latching	90°		0	black	**1.15.108.572/0100**
2 NC + 2 NO	latching	90°		0+1	black	**1.15.108.632/0100**

Technical data see page 1 - 42

Included: 2 keys.
Other lock variants and contacts available on request.

1

LUMOTAST 75 IP40 signal lamp with lamp socket T 4.5

Pict.: with blue lens

Mounting hole

Technical data

General information
Form of lens	see order block
Form of collar	see order block
Colour of collar	see order block

Dimensions
Length of collar	see order block
Width of collar	see order block
Diameter of collar	see order block
Overall height	7.5 mm
Mounting depth	33.5 mm
Mounting hole	16.2 mm

Mechanical design
Mounting	ring nut
Terminals	solder terminals
Lamp socket	T 4.5
Lamp	filament lamp / LED

Electrical characteristics
Voltage limit max.	42 V
Power limit max.	1.2 W

Other specifications
Degree of protection from front side	IP40
Weight	5 g
Approvals	ENEC 25 T 55 (70), UL, CSA
Ambient temp. operating min.	-25 °C
Ambient temp. operating max.	+55 °C
Storage temperature min.	-40 °C
Storage temperature max.	+80 °C
Resistance to constant environment	according to IEC 600 68-2-3 and 2-30
Resistance at variable environment	according to IEC 60068-2-14 and 2-33

Typical accessories LUMOTAST 75 IP40 signal lamp with lamp socket T 4.5

Description	Photo	Order no.	Additional accessories see page
Filament lamp, T 4.5 base, 12 V		**1.90.100.022/0000**	5 - 6
Filament lamp, T 4.5 base, 24 V		**1.90.100.023/0000**	5 - 6
LED T 4.5 superbright, red, 24 V		**1.90.690.331/0000**	5 - 16
LED T 4.5 superbright, green, 24 V		**1.90.690.332/0000**	5 - 16
LED T 4.5 superbright, yellow, 24 V		**1.90.690.333/0000**	5 - 16
LED T 4.5 superbright, blue, 24 V		**1.90.690.334/0000**	5 - 16
LED T 4.5 superbright, white, 24 V		**1.90.690.335/0000**	5 - 16
LED T 4.5, red, 2-3 V (use external resistor)		**1.90.692.001/0000**	5 - 16

Stock items are marked
by **bold printed** order numbers.

RAFI
SOLUTIONS WITH PASSION

1

Typical accessories LUMOTAST 75 IP40 signal lamp with lamp socket T 4.5

Description	Photo	Order no.	Additional accessories see page
LED T 4.5, green, 2-3 V (use external resistor)		**1.90.692.002/0000**	5 - 16
LED T 4.5, yellow, 2-3 V (use external resistor)		**1.90.692.003/0000**	5 - 16
Blanking cap, black, to cover spare holes, dimensions 18 x 18 mm		**5.52.006.020/0103**	5 - 26
Blanking cap, black, to cover spare holes, dimensions 18 x 24 mm		**5.52.006.021/0100**	5 - 26
Blanking cap, black, to cover spare holes, round 18 mm		**5.52.006.022/0100**	5 - 26
Fixing spanner M 15, M 16		**5.58.002.019/0105**	5 - 21

LUMO
75 (40)

LUMOTAST 75 IP40 signal lamp with lamp socket T 4.5, round collar, protruding lens
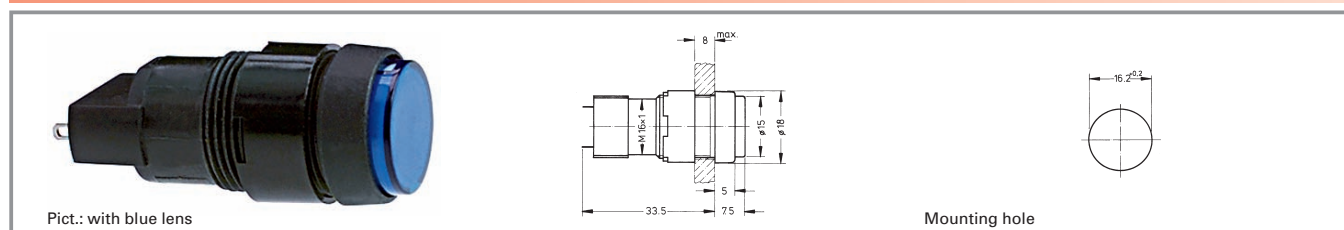
Pict.: with blue lens

Mounting hole

Voltage limit max.	Power limit max.	Lamp socket	Colour of collar	Order no. without lens	Note
42 V	1.2 W	T 4.5	black	**1.65.111.071/0000**	Please include the desired lens and diffuser in your order.

Technical data see page 1 - 46

Lenses:
Lens, round, transparent colourless, for filament lamp or LED: **5.49.257.011/1002**
Lens, round, transparent red, for LED: **5.49.257.011/1301**
Lens, round, transparent red, for filament lamp: **5.49.257.011/1303**
Lens, round, transparent yellow, for filament lamp or LED: **5.49.257.011/1402**
Lens, round, transparent green, for filament lamp: **5.49.257.011/1502**
Lens, round, transparent green, for LED: **5.49.257.011/1503**
Lens, round, transparent blue, for filament lamp: **5.49.257.011/1601**

Accessories:
Diffuser, round, for filament lamp, without legend: **5.72.050.000/0202**
Diffuser, round, for LED, without legend: **5.72.050.000/0214**

Stock items are marked
by **bold printed** order numbers.

1

LUMOTAST 75 IP40 signal lamp, square collar, flush lens

Pict.: with yellow lens

Mounting hole

Voltage limit max.	Power limit max.	Lamp socket	Colour of collar	Order no. without lens	Note
42 V	1.2 W	T 4.5	black	**1.65.111.061/0000**	Please include the desired lens and diffuser in your order.

Technical data see page 1 - 46

Lenses:
Lens, rectangular, transparent colourless, for filament lamp or LED: **5.49.275.036/1002**
Lens, rectangular, transparent red, for LED: **5.49.275.036/1301**
Lens, rectangular, transparent red, for filament lamp: **5.49.275.036/1303**
Lens, rectangular, transparent yellow, for filament lamp or LED: **5.49.275.036/1402**
Lens, rectangular, transparent green, for filament lamp: **5.49.275.036/1502**
Lens, rectangular, transparent green, for LED: **5.49.275.036/1503**
Lens, rectangular, transparent blue, for filament lamp: **5.49.275.036/1601**

Accessories:
Diffuser, square, for filament lamp, without legend: **5.73.013.000/0202**
Diffuser, square, for LED, without legend: **5.73.013.000/0214**

LUMOTAST 75 IP40 signal lamp, rectangular collar, flush lens
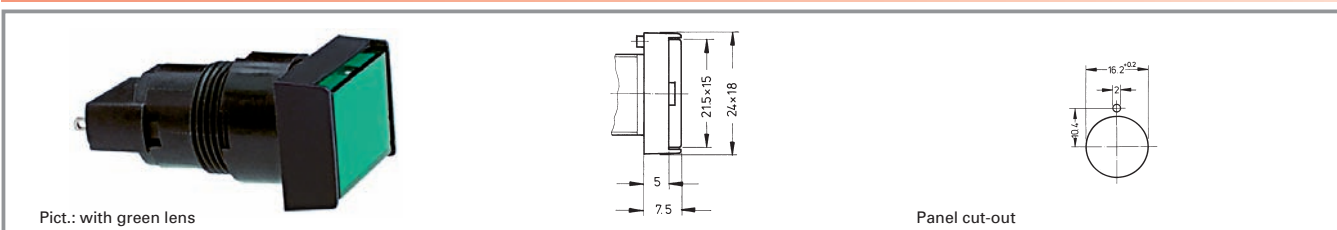
Pict.: with green lens

Panel cut-out

Voltage limit max.	Power limit max.	Lamp socket	Colour of collar	Order no. without lens	Note
42 V	1.2 W	T 4.5	black	**1.65.111.051/0000**	Please include the desired lens and diffuser in your order.

Technical data see page 1 - 46

Lenses:
Lens, rectangular, transparent colourless, for filament lamp or LED: **5.49.275.032/1002**
Lens, rectangular, transparent red, for LED: **5.49.275.032/1301**
Lens, rectangular, transparent red, for filament lamp: **5.49.275.032/1303**
Lens, rectangular, transparent yellow, for filament lamp or LED: **5.49.275.032/1402**
Lens, rectangular, transparent green, for filament lamp: **5.49.275.032/1502**
Lens, rectangular, transparent green, for LED: **5.49.275.032/1503**
Lens, rectangular, transparent blue, for filament lamp: **5.49.275.032/1601**

Accessories:
Diffuser, rectangular, for filament lamp, without legend: **5.73.012.000/0202**
Diffuser, rectangular, for LED, without legend: **5.73.012.000/0214**

Stock items are marked
by **bold printed** order numbers.

Pushbuttons

RAFI
SOLUTIONS WITH PASSION

1

LUMOTAST 75 IP40 signal lamp, square collar, protruding lens
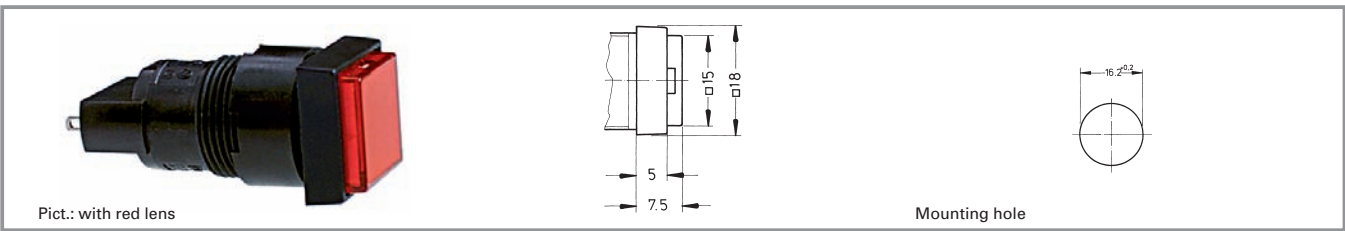
Pict.: with red lens

Mounting hole

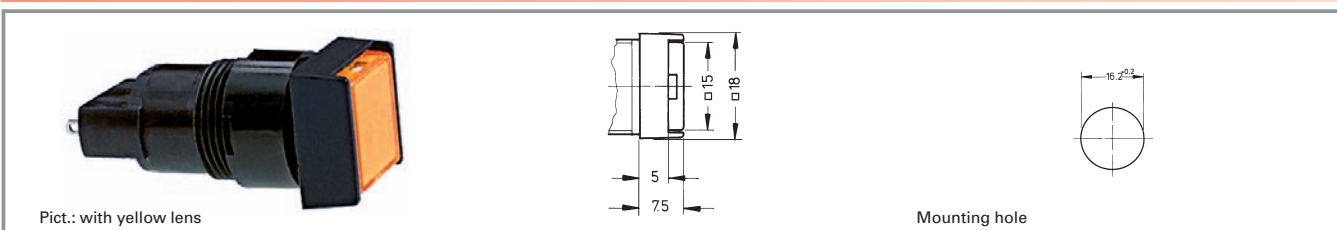| Voltage limit max.	Power limit max.	Lamp socket	Colour of collar	Order no. without lens	Note
42 V	1.2 W	T 4.5	black	1.65.111.081/0000	Please include the desired lens and diffuser in your order.

Technical data see page 1 - 46

Lenses:
Lens, rectangular, transparent colourless, for filament lamp or LED: **5.49.275.036/1002**
Lens, rectangular, transparent red, for LED: **5.49.275.036/1301**
Lens, rectangular, transparent red, for filament lamp: **5.49.275.036/1303**
Lens, rectangular, transparent yellow, for filament lamp or LED: **5.49.275.036/1402**
Lens, rectangular, transparent green, for filament lamp: **5.49.275.036/1502**
Lens, rectangular, transparent green, for LED: **5.49.275.036/1503**
Lens, rectangular, transparent blue, for filament lamp: **5.49.275.036/1601**

Accessories:
Diffuser, square, for filament lamp, without legend: **5.73.013.000/0202**
Diffuser, square, for LED, without legend: **5.73.013.000/0214**

LUMO
75 (40)

General data

LUMOTAST 75 IP65 pushbutton range
Illuminated pushbuttons and signal lamps with lamp socket T 4.5
• Mounting hole diameter 16.2 mm
• Degree of protection IP65
• Solder terminals for the following wire cross-sections:
  - Installed 0.5 mm^2 max.
  - Factory terminated 0.35 mm^2 max.
• 250 V/4 A max.
• 2 NC + 2 NO max. (3 NC + 3 NO on request)

Content

RAFI
SOLUTIONS WITH PASSION

1

LUMOTAST 75 illuminated pushbutton IP65

Pict.: with red lens

Mounting hole

**LUMO
75 (65)**

Technical data

General information

Form of lens	see order block
Colour of lens	see order block
Form of collar	see order block
Colour of collar	black

Dimensions

Length of collar	see order block
Diameter of collar	see order block
Width of collar	see order block
Overall height	10.5 mm
Mounting depth	see order block
Mounting hole	16.2 mm

Mechanical design

Mounting	ring nut
Terminals	solder terminals
Contact system	snap-action bridge contact
Contact function	see order block
Contact arrangement	see order block
Contact materials	Ag
Illuminability	yes
Lamp socket	T 4.5

Mechanical characteristics

Operating force	3 ... 6.5 N
Operating travel	2.5 mm
Switching travel NC	1.8 mm
Switching travel NO	0.9 mm
Robustness min.	100 N

Electrical characteristics

Rated voltage AC max.	250 V
Rated voltage DC max.	220 V
Rated voltage AC/DC min.	12 V
Rated current AC max.	4 A

Rated current DC max.	0.2 A
Rated current AC/DC min.	5 mA
Contact resistance acc.	
to life max.	200 mΩ
Protection class	II
ESD-strength min.	14 kV

Other specifications

Operating life, at 250 V/2 A (operations)	200000 (momentary), 50000 (latching)
Operating life, at 250 V/4 A (operations)	60000 (momentary)
Degree of protection from front side	IP65
Ambient temp. operating min.	-25 °C
Ambient temp. operating without lamp max.	+70 °C
Ambient temp. operating with lamp max.	+55 °C
Storage temperature min.	-40 °C
Storage temperature max.	+80 °C
Resistance to constant environment	according to IEC 600 68-2-3 and 2-30
Resistance at variable environment	according to IEC 60068-2-14 and 2-33
Weight	15 g
Approvals	ENEC 25 T 55 (70), UL, CSA
Flame class acc. to UL 94	V 0
Hot wire ignition acc. to IEC 60695-2-1	yes

Typical accessories LUMOTAST 75 illuminated pushbutton IP65

Description	Photo	Order no.	Additional accessories see page
Filament lamp, T 4.5 base, 12 V		**1.90.100.022/0000**	5 - 6
Filament lamp, T 4.5 base, 24 V		**1.90.100.023/0000**	5 - 6

Stock items are marked
by **bold printed** order numbers.

RAFI
SOLUTIONS WITH PASSION

1

LUMO
75 (65)

Typical accessories LUMOTAST 75 illuminated pushbutton IP65

Description	Photo	Order no.	Additional accessories see page
LED T 4.5 superbright, red, 24 V		**1.90.690.331/0000**	5 - 16
LED T 4.5 superbright, green, 24 V		**1.90.690.332/0000**	5 - 16
LED T 4.5 superbright, yellow, 24 V		**1.90.690.333/0000**	5 - 16
LED T 4.5 superbright, blue, 24 V		**1.90.690.334/0000**	5 - 16
LED T 4.5 superbright, white, 24 V		**1.90.690.335/0000**	5 - 16
LED T 4.5, red, 2-3 V (use external resistor)		**1.90.692.001/0000**	5 - 16
LED T 4.5, green, 2-3 V (use external resistor)		**1.90.692.002/0000**	5 - 16
LED T 4.5, yellow, 2-3 V (use external resistor)		**1.90.692.003/0000**	5 - 16
Lamp extractor for lamp diameter 4 mm		**1.90.900.002/0000**	5 - 20
Lamp extractor for lamp diameter 5-6 mm		**1.90.900.004/0000**	5 - 20
Protective cap (for 18 x 24 collar)		5.05.800.027/0000	5 - 24
Blanking cap, black, to cover spare holes, dimensions 18 x 18 mm		**5.52.006.020/0103**	5 - 26
Blanking cap, black, to cover spare holes, dimensions 18 x 24 mm		**5.52.006.021/0100**	5 - 26
Blanking cap, black, to cover spare holes, round 18 mm		**5.52.006.022/0100**	5 - 26
Fixing spanner M 15, M 16		**5.58.002.019/0105**	5 - 21

Stock items are marked
by **bold printed** order numbers.

RAFI
SOLUTIONS WITH PASSION

LUMOTAST 75 illuminated pushbutton IP65, flush lens, square collar

Pict.: with red lens

Mounting hole

Contact arrangement	Contact function	Colour of collar	Order no. without lens	Note
1 NC + 1 NO	momentary	black	**1.15.108.276/0000**	Please include the desired lens in your order.
1 NC + 1 NO	latching	black	1.15.108.376/0000	Please include the desired lens in your order.
2 NC + 2 NO	momentary	black	1.15.108.277/0000	Please include the desired lens in your order.
2 NC + 2 NO	latching	black	1.15.108.377/0000	Please include the desired lens in your order.

Technical data see page 1 - 52

Lenses:
Lens, square, transparent colourless, for filament lamp or LED: **5.49.277.052/1002**
Lens, square, transparent red, for LED: **5.49.277.052/1301**
Lens, square, transparent red, for filament lamp: **5.49.277.052/1303**
Lens, square, transparent yellow, for filament lamp or LED: **5.49.277.052/1402**
Lens, square, transparent green, for filament lamp: **5.49.277.052/1502**
Lens, square, transparent green, for LED: **5.49.277.052/1503**
Lens, square, transparent blue, for filament lamp: **5.49.277.052/1601**

Accessories:
Legend insert, square, without legend: **5.70.629.000/2000**

LUMO 75 (65)

Stock items are marked by **bold printed** order numbers.

Pushbuttons

RAFI
SOLUTIONS WITH PASSION

1

LUMOTAST 75 illuminated pushbutton IP65, protruding lens, square collar

Pict.: with yellow lens

Mounting hole

Contact arrangement	Contact function	Colour of collar	Order no. without lens	Note
1 NC + 1 NO	momentary	black	1.15.108.281/0000	Please include the desired lens in your order.
1 NC + 1 NO	latching	black	1.15.108.381/0000	Please include the desired lens in your order.
2 NC + 2 NO	momentary	black	1.15.108.282/0000	Please include the desired lens in your order.
2 NC + 2 NO	latching	black	1.15.108.382/0000	Please include the desired lens in your order.

Technical data see page 1 - 52

LUMO 75 (65)

Lenses:
Lens, square, transparent colourless, for filament lamp or LED: **5.49.277.052/1002**
Lens, square, transparent red, for LED: **5.49.277.052/1301**
Lens, square, transparent red, for filament lamp: **5.49.277.052/1303**
Lens, square, transparent yellow, for filament lamp or LED: **5.49.277.052/1402**
Lens, square, transparent green, for filament lamp: **5.49.277.052/1502**
Lens, square, transparent green, for LED: **5.49.277.052/1503**
Lens, square, transparent blue, for filament lamp: **5.49.277.052/1601**

Accessories:
Legend insert, square, without legend: **5.70.629.000/2000**

RAFI
SOLUTIONS WITH PASSION

1

LUMOTAST 75 illuminated pushbutton IP65, flush lens, round collar

Pict.: with blue lens   10,5   φ 19   Mounting hole   16,2⁺⁰·²

Contact arrangement	Contact function	Colour of collar	Order no. without lens	Note
1 NC + 1 NO	momentary	black	**1.15.108.481/0000**	Please include the desired lens in your order.
1 NC + 1 NO	latching	black	1.15.108.981/0000	Please include the desired lens in your order.
2 NC + 2 NO	momentary	black	1.15.108.482/0000	Please include the desired lens in your order.
2 NC + 2 NO	latching	black	1.15.108.982/0000	Please include the desired lens in your order.

LUMO 75 (65)

Technical data see page 1 - 52

Lenses:
Lens, round, transparent colourless, for filament lamp or LED: **5.49.259.013/1002**
Lens, round, transparent red, for LED: **5.49.259.013/1301**
Lens, round, transparent red, for filament lamp: **5.49.259.013/1303**
Lens, round, transparent yellow, for filament lamp or LED: **5.49.259.013/1402**
Lens, round, transparent green, for filament lamp: **5.49.259.013/1502**
Lens, round, transparent green, for LED: **5.49.259.013/1503**
Lens, round, transparent blue, for filament lamp: **5.49.259.013/1601**

Accessories:
Legend insert, round, without legend: **5.70.059.000/2000**

LUMOTAST 75 illuminated pushbutton IP65, protruding lens, round collar

Pict.: with colourless lens

Mounting hole

Contact arrangement	Contact function	Colour of collar	Order no. without lens	Note
1 NC + 1 NO	momentary	black	1.15.108.476/0000	Please include the desired lens in your order.
1 NC + 1 NO	latching	black	1.15.108.976/0000	Please include the desired lens in your order.
2 NC + 2 NO	momentary	black	1.15.108.477/0000	Please include the desired lens in your order.
2 NC + 2 NO	latching	black	1.15.108.977/0000	Please include the desired lens in your order.

Technical data see page 1 - 52

Lenses:
Lens, round, transparent colourless, for filament lamp or LED: **5.49.259.013/1002**
Lens, round, transparent red, for LED: **5.49.259.013/1301**
Lens, round, transparent red, for filament lamp: **5.49.259.013/1303**
Lens, round, transparent yellow, for filament lamp or LED: **5.49.259.013/1402**
Lens, round, transparent green, for filament lamp: **5.49.259.013/1502**
Lens, round, transparent green, for LED: **5.49.259.013/1503**
Lens, round, transparent blue, for filament lamp: **5.49.259.013/1601**

Accessories:
Legend insert, round, without legend: **5.70.059.000/2000**

Stock items are marked
by **bold printed** order numbers.

1

LUMOTAST 75 illuminated pushbutton IP65, flush lens, rectangular collar

Pict.: with green lens, without threaded ring
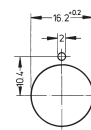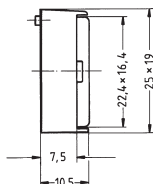
Panel cut-out

Contact arrangement	Contact function	Colour of collar	Order no. without lens	Note
1 NC + 1 NO	momentary	black	**1.15.108.076/0000**	Please include the desired lens in your order.
1 NC + 1 NO	latching	black	1.15.108.176/0000	Please include the desired lens in your order.
2 NC + 2 NO	momentary	black	1.15.108.077/0000	Please include the desired lens in your order.
2 NC + 2 NO	latching	black	1.15.108.177/0000	Please include the desired lens in your order.

LUMO 75 (65)

Technical data see page 1 - 52

Lenses:
Lens, rectangular, transparent colourless, for filament lamp or LED: **5.49.277.058/1002**
Lens, rectangular, transparent red, for LED: **5.49.277.058/1301**
Lens, rectangular, transparent red, for filament lamp: **5.49.277.058/1303**
Lens, rectangular, transparent yellow, for filament lamp or LED: **5.49.277.058/1402**
Lens, rectangular, transparent green, for filament lamp: **5.49.277.058/1502**
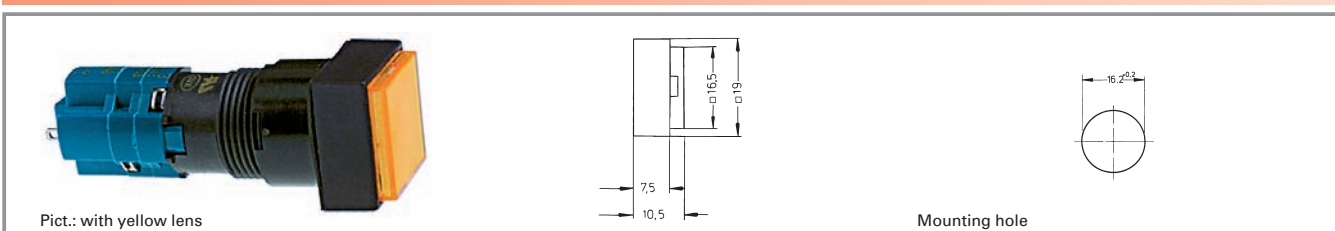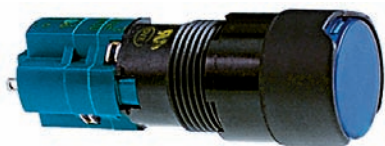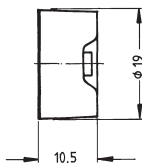Lens, rectangular, transparent green, for LED: **5.49.277.058/1503**
Lens, rectangular, transparent blue, for filament lamp: **5.49.277.058/1601**

Accessories:
Legend insert, rectangular without legend: **5.70.630.000/2000**

Stock items are marked
by **bold printed** order numbers.

RAFI
SOLUTIONS WITH PASSION

LUMOTAST 75 signal lamp IP65

Pict.: with red lens   Mounting hole

Technical data

General information
Form of lens	see order block
Form of collar	see order block
Diameter of collar	see order block

Dimensions
Length of collar	see order block
Width of collar	see order block
Overall height	10.5 mm
Mounting depth	33.5 mm
Mounting hole	16.2 mm

Mechanical design
Mounting	ring nut
Terminals	solder terminals
Lamp socket	T 4.5
Lamp	filament lamp / LED

Electrical characteristics
Voltage limit max.	42 V
Power limit max.	1.2 W

Other specifications
Degree of protection from front side	IP65
Weight	5 g
Approvals	ENEC 25 T 55 (70), UL, CSA
Ambient temp. operating min.	-25 °C
Ambient temp. operating max.	+55 °C
Storage temperature min.	-40 °C
Storage temperature max.	+80 °C

Typical accessories LUMOTAST 75 signal lamp IP65

Description	Photo	Order no.	Additional accessories see page
Filament lamp, T 4.5 base, 12 V		**1.90.100.022/0000**	5 - 6
Filament lamp, T 4.5 base, 24 V		**1.90.100.023/0000**	5 - 6
LED T 4.5 superbright, red, 24 V		**1.90.690.331/0000**	5 - 16
LED T 4.5 superbright, green, 24 V		**1.90.690.332/0000**	5 - 16
LED T 4.5 superbright, yellow, 24 V		**1.90.690.333/0000**	5 - 16
LED T 4.5 superbright, blue, 24 V		**1.90.690.334/0000**	5 - 16
LED T 4.5 superbright, white, 24 V		**1.90.690.335/0000**	5 - 16
LED T 4.5, red, 2-3 V (use external resistor)		**1.90.692.001/0000**	5 - 16
LED T 4.5, yellow, 2-3 V (use external resistor)		**1.90.692.003/0000**	5 - 16

LUMO 75 (65)

1

Stock items are marked by **bold printed** order numbers.

Pushbuttons

1

Typical accessories LUMOTAST 75 signal lamp IP65

Description	Photo	Order no.	Additional accessories see page
Lamp extractor for lamp diameter 4 mm		**1.90.900.002/0000**	5 - 20
Lamp extractor for lamp diameter 5-6 mm		**1.90.900.004/0000**	5 - 20
Blanking cap, black, to cover spare holes, dimensions 18 x 18 mm		**5.52.006.020/0103**	5 - 26
Blanking cap, black, to cover spare holes, dimensions 18 x 24 mm		**5.52.006.021/0100**	5 - 26
Blanking cap, black, to cover spare holes, round 18 mm		**5.52.006.022/0100**	5 - 26
Fixing spanner M 15, M 16		**5.58.002.019/0105**	5 - 21

LUMO
75 (65)

LUMOTAST 75 signal lamp IP65, flush lens, square collar
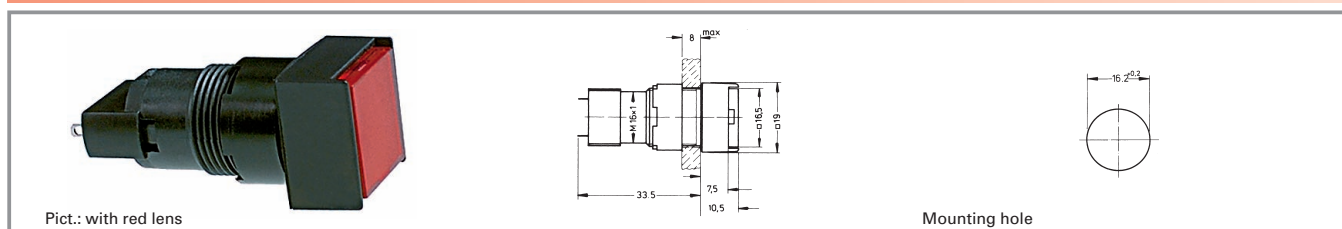
Pict.: with red lens

Mounting hole

Voltage limit max.	Power limit max.	Lamp socket	Form of collar	Order no. without lens	Note
42 V	1.2 W	T 4.5	square	**1.65.111.066/0000**	Please include the desired lens in your order.

Technical data see page 1 - 60

Lenses:
Lens, square, transparent colourless, for filament lamp or LED: **5.49.277.052/1002**
Lens, square, transparent red, for LED: **5.49.277.052/1301**
Lens, square, transparent red, for filament lamp: **5.49.277.052/1303**
Lens, square, transparent yellow, for filament lamp or LED: **5.49.277.052/1402**
Lens, square, transparent green, for filament lamp: **5.49.277.052/1502**
Lens, square, transparent green, for LED: **5.49.277.052/1503**
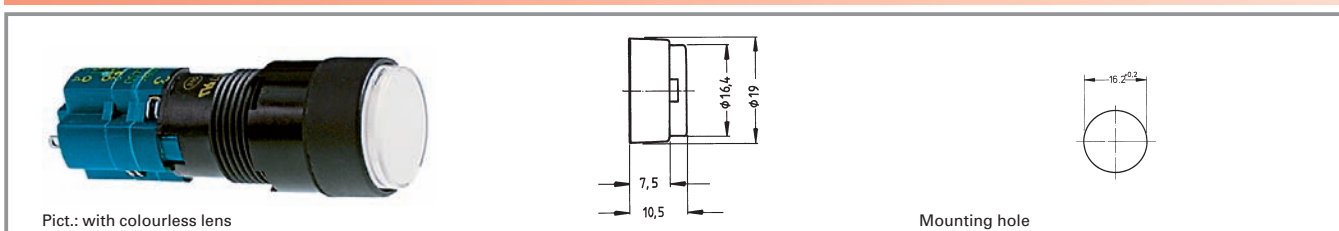Lens, square, transparent blue, for filament lamp: **5.49.277.052/1601**

Accessories:
Legend insert, square, without legend: **5.70.629.000/2000**

For assembly, press the lens as far as possible.

RAFI
SOLUTIONS WITH PASSION

1

LUMO
75 (65)

LUMOTAST 75 signal lamp IP65, protruding lens, square collar

Pict.: with green lens

Mounting hole

Voltage limit max.	Power limit max.	Lamp socket	Form of collar	Order no. without lens	Note
42 V	1.2 W	T 4.5	square	1.65.111.086/0000	Please include the desired lens in your order.

Technical data see page 1 - 60

Lenses:
Lens, square, transparent colourless, for filament lamp or LED: **5.49.277.052/1002**
Lens, square, transparent red, for LED: **5.49.277.052/1301**
Lens, square, transparent red, for filament lamp: **5.49.277.052/1303**
Lens, square, transparent yellow, for filament lamp or LED: **5.49.277.052/1402**
Lens, square, transparent green, for filament lamp: **5.49.277.052/1502**
Lens, square, transparent green, for LED: **5.49.277.052/1503**
Lens, square, transparent blue, for filament lamp: **5.49.277.052/1601**

Accessories:
Legend insert, square, without legend: **5.70.629.000/2000**

For assembly, press the lens as far as possible.

LUMOTAST 75 signal lamp IP65, flush lens, round collar

Pict.: with yellow lens

Mounting hole

Voltage limit max.	Power limit max.	Lamp socket	Form of collar	Order no. without lens	Note
42 V	1.2 W	T 4.5	round	1.65.111.096/0000	Please include the desired lens in your order.

Technical data see page 1 - 60

Lenses:
Lens, round, transparent colourless, for filament lamp or LED: **5.49.259.013/1002**
Lens, round, transparent red, for LED: **5.49.259.013/1301**
Lens, round, transparent red, for filament lamp: **5.49.259.013/1303**
Lens, round, transparent yellow, for filament lamp or LED: **5.49.259.013/1402**
Lens, round, transparent green, for filament lamp: **5.49.259.013/1502**
Lens, round, transparent green, for LED: **5.49.259.013/1503**
Lens, round, transparent blue, for filament lamp: **5.49.259.013/1601**

Accessories:
Legend insert, round, without legend: **5.70.059.000/2000**

For assembly, press the lens as far as possible.

Stock items are marked
by **bold printed** order numbers.

RAFI
SOLUTIONS WITH PASSION

1

LUMOTAST 75 signal lamp IP65, protruding lens, round collar

Pict.: with blue lens

Mounting hole

Voltage limit max.	Power limit max.	Lamp socket	Form of collar	Order no. without lens	Note
42 V	1.2 W	T 4.5	round	**1.65.111.076/0000**	Please include the desired lens in your order.

Technical data see page 1 - 60

Lenses:
Lens, round, transparent colourless, for filament lamp or LED: **5.49.259.013/1002**
Lens, round, transparent red, for LED: **5.49.259.013/1301**
Lens, round, transparent red, for filament lamp: **5.49.259.013/1303**
Lens, round, transparent yellow, for filament lamp or LED: **5.49.259.013/1402**
Lens, round, transparent green, for filament lamp: **5.49.259.013/1502**
Lens, round, transparent green, for LED: **5.49.259.013/1503**
Lens, round, transparent blue, for filament lamp: **5.49.259.013/1601**

Accessories:
Legend insert, round, without legend: **5.70.059.000/2000**

For assembly, press the lens as far as possible.

LUMO 75 (65)

LUMOTAST 75 signal lamp IP65, flush lens, rectangular collar

Pict.: with colourless lens

Mounting hole

Voltage limit max.	Power limit max.	Lamp socket	Form of collar	Order no. without lens	Note
42 V	1.2 W	T 4.5	rectangular	1.65.111.056/0000	Please include the desired lens in your order.

Technical data see page 1 - 60

Lenses:
Lens, rectangular, transparent colourless, for filament lamp or LED: **5.49.277.058/1002**
Lens, rectangular, transparent red, for LED: **5.49.277.058/1301**
Lens, rectangular, transparent red, for filament lamp: **5.49.277.058/1303**
Lens, rectangular, transparent yellow, for filament lamp or LED: **5.49.277.058/1402**
Lens, rectangular, transparent green, for filament lamp: **5.49.277.058/1502**
Lens, rectangular, transparent green, for LED: **5.49.277.058/1503**
Lens, rectangular, transparent blue, for filament lamp: **5.49.277.058/1601**
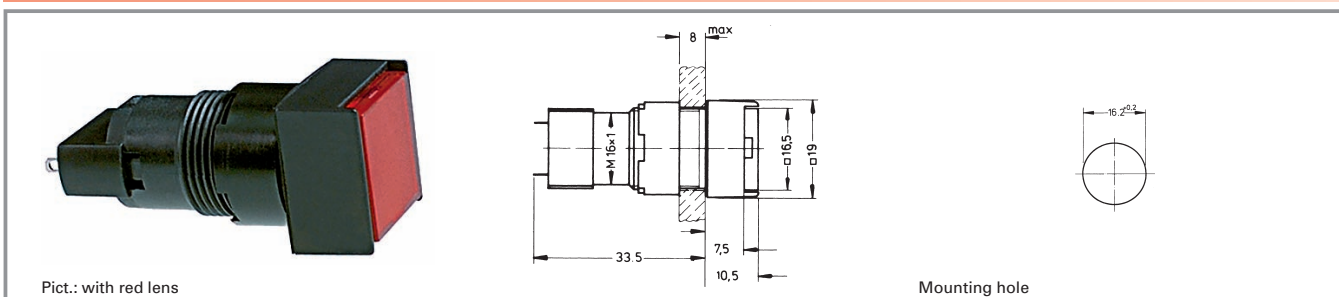
Accessories:
Legend insert, rectangular without legend: **5.70.630.000/2000**

For assembly, press the lens as far as possible.

Stock items are marked
by **bold printed** order numbers.

RAFI
SOLUTIONS WITH PASSION

1

General data

Keylock switch for a mounting hole diameter of 16.2 mm
• 42 V max.
• 100 mA
• Design matches with LUMOTAST FK and 75 IP40.

Key switches

Content

RAFI
SOLUTIONS WITH PASSION

Keylock switch

| Pict.: with plug-in socket | PCB footprint | PCB footprint for plug-in socket |

Technical data

General information
Form of collar   see order block

Dimensions
Length of collar   see order block
Diameter of collar   see order block
Width of collar   see order block
Overall height   7.5 mm
Mounting depth   39.5 mm; with plug-in
                                  socket 41.25
Mounting hole   16.2 mm

Mechanical design
Mounting   ring nut
Terminals   solder terminals
Contact system   sliding contact,
                                  self cleaning
Contact function   latching
Contact arrangement   1 NO at every switching
                                  position
Contact materials   Au alloy
Illuminability   no

Mechanical design of lock
Lock   cylinder lock with pin
                                  tumblers
Wafers   5 pins
Lock type   5001
Number of locking
positions   10000
Main key   on request
Symmetric key   on request
Key removal position   see order block

Mechanical characteristics
Torque for actuating   0.035 Nm
Torque against stop   1.8 Nm

Electrical characteristics
Rated voltage AC/DC max.   42 V
Rated voltage AC/DC min.   see order block
Rated current AC/DC max.   100 mA
Rated current AC/DC min.   5 mA
ESD strength max.   12 kV
Insulation resistance
min. 6×10^8 Ω
Contact resistance max.   200 mΩ

Other specifications
Operating life   50000
Degree of protection
from front side   IP65
Ambient temp. operating
min.   -25 °C
Ambient temp. operating
max.   +70 °C
Storage temperature min.   -40 °C
Storage temperature max.   +80 °C
Resistance to constant   according to
environment   IEC 600 68-2-3 and 2-30
Soldering temperature
max.   350 °C
Resistance at variable   according to
environment   IEC 60068-2-14 and 2-33
Weight   29 g
Soldering time max.   3 sec.
Rotating angle   see order block

Typical accessories Keylock switch

Description	Photo	Order no.	Additional accessories see page
Plug-in socket for PCB mounting		5.05.510.298/0000	5 - 23
Fixing spanner M 15, M 16		**5.58.002.019/0105**	5 - 21
Spare key (1 key)		5.58.011.001/0000	

Stock items are marked
by **bold printed** order numbers.

Pushbuttons

Keylock switch, round collar

Panel cut-out

Contact arrange-ment	Contact function	Rotating angle		Key removal position	Order no.
1 NO at every switching position	latching	1 x 90°		0+1	1.10.118.612/0000
1 NO at every switching position	latching	2 x 90°		0	1.10.118.513/0000
1 NO at every switching position	latching	2 x 90°		0+1+2	1.10.118.713/0000
1 NO at every switching position	latching	3 x 90°		0+1+2+3	1.10.118.814/0000

Technical data see page 1 - 66

Included: 2 keys.

Key switches

Keylock switch, rectangular collar
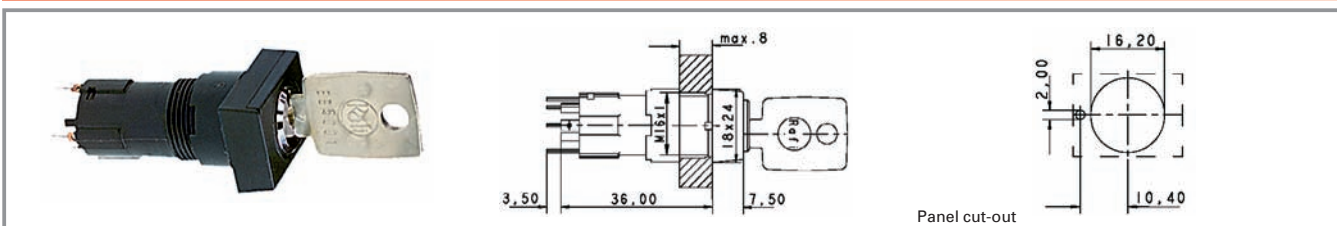
Panel cut-out

Contact arrange-ment	Contact function	Rotating angle		Key removal position	Order no.
1 NO at every switching position	latching	1 x 90°		0+1	1.10.118.212/0000
1 NO at every switching position	latching	2 x 90°		0+1+2	1.10.118.313/0000
1 NO at every switching position	latching	3 x 90°		0+1+2+3	1.10.118.414/0000

Technical data see page 1 - 66

Included: 2 keys.

1

Priority keylock switch

| Pict.: with plug-in socket | PCB footprint | PCB footprint for plug-in socket |

Technical data

General information

Form of collar   see order block

Dimensions

Length of collar   see order block
Diameter of collar   see order block
Width of collar   see order block
Overall height   7.5 mm
Mounting depth   39.5 mm; with plug-in
                               socket 41.25
Mounting hole   16.2 mm

Mechanical design

Mounting   ring nut
Terminals   solder terminals
Contact system   sliding contact,
                               self cleaning
Contact function   latching
Contact arrangement   1 NO at every switching
                               position
Contact materials   Au alloy
Illuminability   no

Mechanical design of lock

Lock   cylinder lock with pin
                               tumblers
Wafers   5 pins
Lock type   5001
Number of locking
positions   10000
Main key   yes
Symmetric key   yes
Key removal position   see order block

Mechanical characteristics

Torque for actuating   0.035 Nm
Torque against stop   1.8 Nm

Electrical characteristics

Rated voltage AC/DC max.   42 V
Rated voltage AC/DC min.   5 V
Rated current AC/DC max.   100 mA
Rated current AC/DC min.   5 mA
ESD strength max.   12 kV
Insulation resistance
min. 6×10^8 Ω
Contact resistance max.   200 mΩ

Other specifications

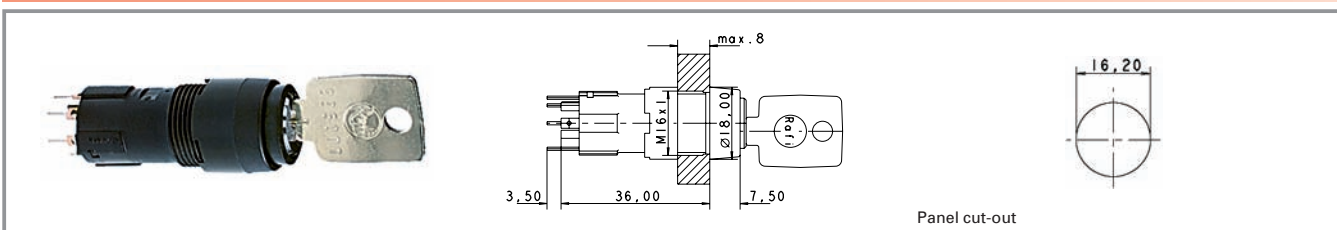Operating life   50000
Degree of protection
from front side   IP65
Ambient temp. operating
min.   -25 °C
Ambient temp. operating
max.   +70 °C
Storage temperature min.   -40 °C
Storage temperature max.   +80 °C
Resistance to constant   according to
environment   IEC 600 68-2-3 and 2-30
Soldering temperature
max.   350 °C
Resistance at variable   according to
environment   IEC 60068-2-14 and 2-33
Weight   29 g
Soldering time max.   3 sec.
Rotating angle   see order block

Typical accessories Priority keylock switch

Description	Photo	Order no.	Additional accessories see page
Plug-in socket for PCB mounting		5.05.510.298/0000	5 - 23
Fixing spanner M 15, M 16		**5.58.002.019/0105**	5 - 21
Set of spare keys (3 keys) for 3 x 90° type		5.58.099.010/0000	

Stock items are marked
by **bold printed** order numbers.

Other keylock switches

Typical accessories Priority keylock switch

Description	Photo	Order no.	Additional acces-sories see page
Set of spare keys (2 keys) for 2 x 90° type		5.58.099.011/0000	

Priority keylock switch, round collar
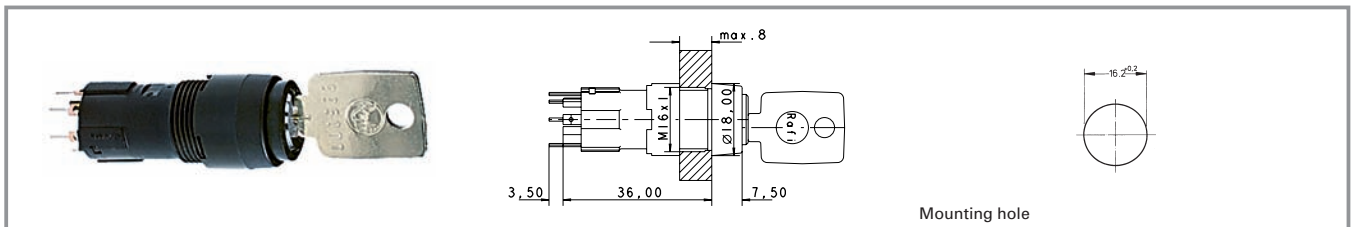
Mounting hole

Contact arrange-ment	Contact function	Rotating angle		Key removal position	Order no.
1 NO at every switching position	latching	2 x 90°		0	1.10.119.611/0000
1 NO at every switching position	latching	3 x 90°		0	1.10.119.617/0000
1 NO at every switching position	latching	3 x 90°		0+1+2+3	**1.10.119.967/0000**

Technical data see page 1 - 68

Included with 2 x 90° type: 2 keys; with 3 x 90° type: 3 keys.
Key 1 switches to lock position 1, key 2 switches to lock positions 1 and 2, etc...

Priority keylock switch, rectangular collar
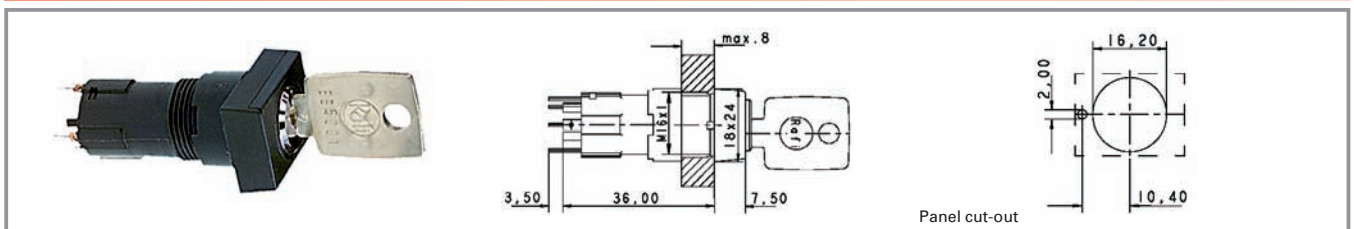
Panel cut-out

Contact arrange-ment	Contact function	Rotating angle		Key removal position	Order no.
1 NO at every switching position	latching	2 x 90°		0	1.10.119.111/0000
1 NO at every switching position	latching	3 x 90°		0	1.10.119.117/0000
1 NO at every switching position	latching	3 x 90°		0+1+2+3	1.10.119.467/0000

Technical data see page 1 - 68

Included with 2 x 90° type: 2 keys; with 3 x 90° type: 3 keys.
Key 1 switches to lock position 1, key 2 switches to lock positions 1 and 2, etc...

Stock items are marked
by **bold printed** order numbers.

Other pushbuttons

General data

Various pushbuttons for mounting hole diameters from 9.1 mm to 20.3 mm.

Content

1

RAFI
SOLUTIONS WITH PASSION

Pushbutton opaque, mounting hole diameter 9.1 mm, non-illuminated, 24 V/100 mA

Pict.: white lens

Panel cut-out

Technical data

General information
Form of lens	protruding lens
Colour of lens	see order block
Form of collar	round

Dimensions
Diameter of collar	11 mm
Overall height	4.5 mm
Mounting depth	25.5 mm
Mounting hole	9.1 mm

Mechanical design
Mounting	ring nut
Terminals	solder terminals
Contact system	bridge contact
Contact function	momentary
Contact arrangement	1 NO
Contact materials	Ag
Illuminability	no
Lamp socket	no

Mechanical characteristics
Operating force max.	7 N
Operating travel	2 mm
Switching travel NO	1.3 mm
Robustness min.	100 N

Electrical characteristics
Rated voltage AC max.	24 V
Rated voltage DC max.	24 V
Rated current max.	0.1 A
Contact resistance max.	200 mΩ

Other specifications
Operating life	40000
Degree of protection from front side	IP40
Ambient temp. operating min.	-25 °C
Ambient temp. operating max.	+70 °C
Storage temperature min.	-40 °C
Storage temperature max.	+80 °C
Resistance to constant environment	according to IEC 600 68-2-3 and 2-30
Resistance at variable environment	according to IEC 60068-2-14 and 2-33
Weight	2 g
Soldering time max.	3 sec.
Soldering temperature max.	350 °C

Typical accessories Pushbutton opaque, mounting hole diameter 9.1 mm, non-illuminated, 24 V/100 mA

Description	Photo	Order no.	Additional accessories see page
Fixing spanner M 9, M 10		**5.58.002.025/0105**	5 - 21

Stock items are marked
by **bold printed** order numbers.

RAFI
SOLUTIONS WITH PASSION

Pushbutton opaque, mounting hole diameter 9.1 mm, non-illuminated, 24 V/0.1 A

Pict.: white lens

Panel cut-out
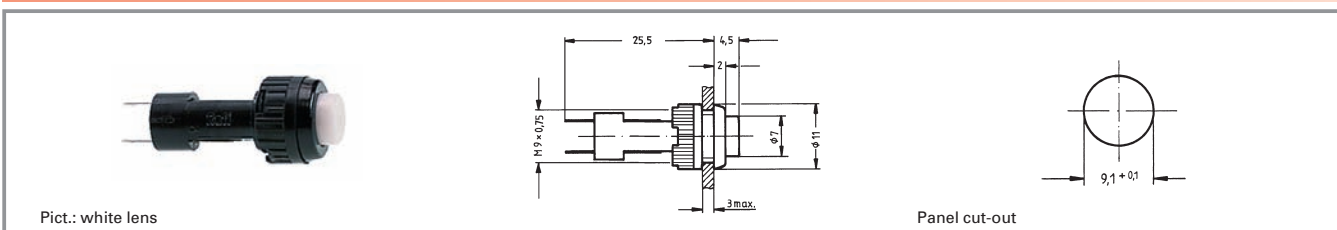
Contact arrangement	Contact function	Illuminability	Rated voltage DC max.	Colour of lens	Order no.
1 NO	momentary	no	24 V	opaque black	**1.10.107.011/0104**
1 NO	momentary	no	24 V	opaque white	**1.10.107.011/0205**
1 NO	momentary	no	24 V	opaque red	**1.10.107.011/0301**
1 NO	momentary	no	24 V	opaque yellow	1.10.107.011/0404
1 NO	momentary	no	24 V	opaque green	**1.10.107.011/0507**

Technical data see page 1 - 72

1

Other
Pushb.
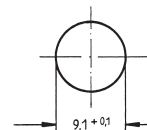
Stock items are marked
by **bold printed** order numbers.

1

Illuminable pushbutton, mounting hole diameter 9.1 mm, 24 V/0.5 A

Pict.: red   Panel cut-out

Technical data

General information

Form of lens	protruding lens
Colour of lens	see order block
Form of collar	round

Dimensions

Diameter of collar	11 mm
Overall height	7 mm
Mounting depth	25 mm
Mounting hole	9.1 mm

Mechanical design

Mounting	ring nut
Terminals	solder terminals
Contact system	bridge contact
Contact function	momentary
Contact arrangement	1 NC + 1 NO
Contact materials	Au
Illuminability	see order block
Lamp socket	no

Mechanical characteristics

Operating force max.	5 N
Operating travel	1.5 mm
Switching travel NC	0.5 mm
Switching travel NO	1 mm
Robustness min.	100 N

Electrical characteristics

Rated voltage AC/DC max.	24 V
Rated voltage DC max.	24 V

Rated current max.	0.5 A
Contact resistance when new max.	50 mΩ
Contact resistance acc. to life max.	300 mΩ
Bouncing time max.	10 ms
Lamp voltage	see order block

Other specifications

Operating life key switch	200000
Operating life filament lamp	see order block
Degree of protection from front side	IP40
Ambient temp. operating min.	-25 °C
Ambient temp. operating max.	+70 (LED +55) °C
Storage temperature min.	-40 °C
Storage temperature max.	+80 °C
Resistance to constant environment	according to IEC 600 68-2-3 and 2-30
Soldering temperature max.	350 °C
Resistance at variable environment	according to IEC 60068-2-14 and 2-33
Weight	3 g
Soldering time max.	3 sec.

Typical accessories Illuminable pushbutton, mounting hole diameter 9.1 mm, 24 V/0.5 A

Description	Photo	Order no.	Additional accessories see page
Fixing spanner M 9, M 10		**5.58.002.025/0105**	5 - 21

RAFI
SOLUTIONS WITH PASSION

Illuminable pushbutton, mounting hole diameter 9.1 mm, 24 V/0.5 A

Pict.: red

Panel cut-out
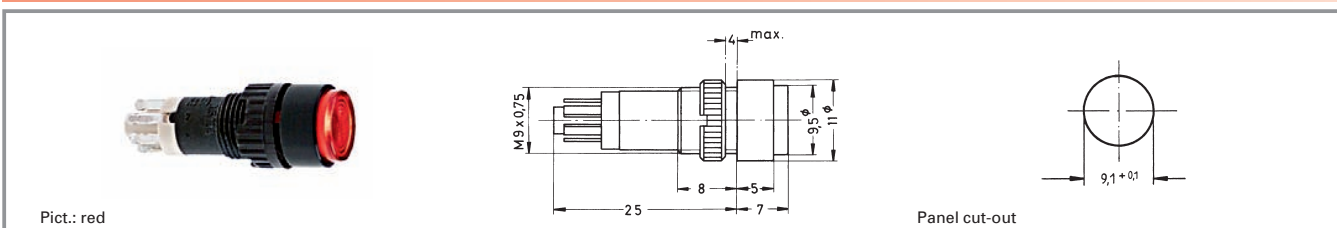
Contact arrangement	Contact function	Illuminability	Lamp voltage	Colour of lens	Order no.
1 NC + 1 NO	momentary	filament lamp	24 V / 0.7 W	transparent colourless	**1.15.106.021/1002**
1 NC + 1 NO	momentary	filament lamp	24 V / 0.7 W	transparent red	**1.15.106.021/1307**
1 NC + 1 NO	momentary	filament lamp	24 V / 0.7 W	transparent yellow	1.15.106.021/1403
1 NC + 1 NO	momentary	filament lamp	24 V / 0.7 W	transparent green	1.15.106.021/1510
1 NC + 1 NO	momentary	no		opaque black	1.15.106.301/0104
1 NC + 1 NO	momentary	no		opaque white	1.15.106.301/0214
1 NC + 1 NO	momentary	no		opaque red	1.15.106.301/0313
1 NC + 1 NO	momentary	no		opaque yellow	1.15.106.301/0410
1 NC + 1 NO	momentary	no		opaque green	1.15.106.301/0518
1 NC + 1 NO	momentary	LED super bright white	2 V/10 mA external series resistor	transparent white	1.15.106.505/1000
1 NC + 1 NO	momentary	LED super bright red	2 V/10 mA external series resistor	transparent red	**1.15.106.501/1300**
1 NC + 1 NO	momentary	LED super bright yellow	2 V/10 mA external series resistor	transparent yellow	**1.15.106.503/1400**
1 NC + 1 NO	momentary	LED super bright green	2 V/10 mA external series resistor	transparent green	**1.15.106.502/1500**
1 NC + 1 NO	momentary	LED super bright blue	2 V/10 mA external series resistor	transparent blue	1.15.106.504/1600

Technical data see page 1 - 74

Recommended values for external series resistor for LED:
• 5 - 7 V = 270 Ω, 0.25 W
• 12 - 14 V = 680 Ω, 0.5 W
• 24 - 28 V = 1500 Ω, 1 W

Operating life filamant Lamp: approx. 2000 h.

Stock items are marked
by **bold printed** order numbers.

1

Pushbutton, opaque, mounting hole diameter 15.2 mm, 250 V/0.7 A

Pict.: Screw terminals, red
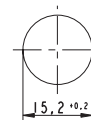
Panel cut-out

| 5,2 +0.2

Technical data

General information
Form of lens   protruding lens
Colour of lens   see order block
Form of collar   round

Dimensions
Diameter of collar   19 mm
Overall height   8.2 mm
Mounting depth   21.5 mm
Mounting hole   15.2 mm

Mechanical design
Mounting   ring nut
Terminals   see order block
Contact system   bridge contact
Contact function   momentary
Contact arrangement   see order block
Contact materials   Ag
Illuminability   no
Lamp socket   no

Mechanical characteristics
Operating force max.   7.5 N
Operating travel   3 mm
Switching travel NC   1.2 mm
Switching travel NO   2.0 mm
Robustness min.   100 N

Electrical characteristics
Rated voltage AC max.   250 V

Rated current max.   0.7 A
Contact resistance when
new max.   50 mΩ
Contact resistance acc.
to life max.   300 mΩ

Other specifications
Operating life   25000
Degree of protection
from front side   IP40 (IP65 with
                             sealing cap)

Ambient temp. operating
min.   -25 °C
Ambient temp. operating
max.   +85 °C
Storage temperature min.   -40 °C
Storage temperature max.   +90 °C
Resistance to constant   according to
environment   IEC 600 68-2-3 and 2-30
Resistance at variable   according to
environment   IEC 60068-2-14 and 2-33
Weight   7 g
Approvals   ENEC T 85/55
Flame class acc. to UL 94   V 0
Hot wire ignition acc.
to IEC 60695-2-1   yes

Typical accessories Pushbutton, opaque, mounting hole diameter 15.2 mm, 250 V/0.7 A

Description	Photo	Order no.	Additional accessories see page
Sealing cap, transparent (IP65)		**5.52.008.115/0000**	
Fixing spanner M 15, M 16		**5.58.002.019/0105**	5 - 21

Pushbutton, opaque, mounting hole diameter 15.2 mm

Pict.: Screw terminals, red
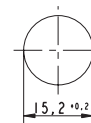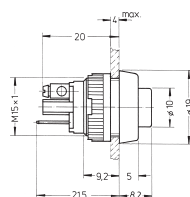
Panel cut-out

Contact arrangement	Contact function	Illuminability	Terminals	Colour of lens	Order no.
1 NO	momentary	no	screw terminals	opaque black	**1.10.001.001/0104**
1 NO	momentary	no	screw terminals	opaque white	**1.10.001.001/0205**
1 NO	momentary	no	screw terminals	opaque red	**1.10.001.001/0301**
1 NO	momentary	no	screw terminals	opaque green	**1.10.001.001/0507**
1 NO	momentary	no	solder/quick connector 6.3x0.8 / 2x 2.8x0.8mm	opaque black	**1.10.001.011/0104**
1 NO	momentary	no	solder/quick connector 6.3x0.8 / 2x 2.8x0.8mm	opaque white	**1.10.001.011/0205**
1 NO	momentary	no	solder/quick connector 6.3x0.8 / 2x 2.8x0.8mm	opaque red	**1.10.001.011/0301**
1 NO	momentary	no	solder/quick connector 6.3x0.8 / 2x 2.8x0.8mm	opaque green	**1.10.001.011/0507**
1 NC	momentary	no	screw terminals	opaque black	1.10.001.151/0104
1 NC	momentary	no	screw terminals	opaque red	**1.10.001.151/0301**
1 NC	momentary	no	solder/quick connector 6.3x0.8 / 2x 2.8x0.8mm	opaque black	1.10.001.161/0104
1 NC	momentary	no	solder/quick connector 6.3x0.8 / 2x 2.8x0.8mm	opaque red	1.10.001.161/0301

Other
Pushb.

Technical data see page 1 - 76

Quick-connector 6.3 x 0.8 mm. The connector is splitted and also usable for two connectors 2.8 x 0.8 mm.

RAFI
SOLUTIONS WITH PASSION

1

Pushbutton, opaque, mounting hole diameter 16.2 mm, 250 V/2 A

Pict.: green

Panel cut-out

16,2 ±0,2

Technical data

General information
Form of lens · protruding lens
Colour of lens · see order block
Form of collar · round

Dimensions
Diameter of collar · 20 mm
Overall height · 9 mm
Mounting depth · 41 mm
Mounting hole · 16.2 mm

Mechanical design
Mounting · ring nut
Terminals · screw terminals
Contact system · bridge contact
Contact function · momentary
Contact arrangement · see order block
Contact materials · Ag
Illuminability · no
Lamp socket · no

Mechanical characteristics
Operating force max. · 7.5 N
Operating travel · 4.3 mm
Switching travel NC · 1.3 mm
Switching travel NO · 2.2 mm
Robustness min. · 100 N

Electrical characteristics
Rated voltage AC max. · 250 V
Rated current max. · 2 A
Contact resistance when
new max. · 100 mΩ

Other specifications
Operating life · 150000
Degree of protection
from front side · IP40 (IP65 with sealing cap)
Ambient temp. operating min. · -25 °C
Ambient temp. operating max. · +85 °C
Storage temperature min. · -40 °C
Storage temperature max. · +90 °C
Resistance to constant environment · according to IEC 600 68-2-3 and 2-30
Resistance at variable environment · according to IEC 60068-2-14 and 2-33
Weight · 11 g
Approvals · ENEC 25 T 85
Flame class acc. to UL 94 · V 0
Hot wire ignition acc. to IEC 60695-2-1 · yes

Typical accessories Pushbutton, opaque, mounting hole diameter 16.2 mm, 250 V/2 A

Description	Photo	Order no.	Additional accessories see page
Sealing cap, black (IP65)		**5.52.008.101/0100**	
Sealing cap, red (IP65)		**5.52.008.101/0300**	
Protective sleeve for terminals		**5.52.011.026/0100**	
Protection against contact to VBG 4		5.55.101.715/0200	5 - 25
Fixing spanner M 15, M 16		5.58.002.019/0105	5 - 21

Stock items are marked by **bold printed** order numbers.

Pushbuttons

Pushbutton, opaque, mounting hole diameter 16.2 mm, 250 V/2 A

Pict.: green

Panel cut-out
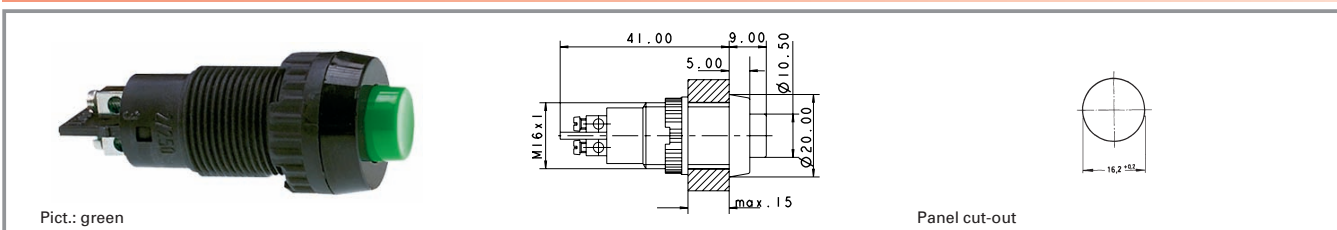
Contact arrangement	Contact function	Illuminability	Rated voltage AC max.	Colour of lens	Order no.
1 NO	momentary	no	250 V	opaque black	**1.10.102.001/0104**
1 NO	momentary	no	250 V	opaque white	1.10.102.001/0205
1 NO	momentary	no	250 V	opaque red	**1.10.102.001/0301**
1 NO	momentary	no	250 V	opaque green	1.10.102.001/0507
1 NC	momentary	no	250 V	opaque black	1.10.102.011/0104
1 NC	momentary	no	250 V	opaque red	**1.10.102.011/0301**

Technical data see page 1 - 78
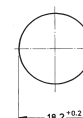
Other
Pushb.

1

Pushbutton, opaque, mounting hole diameter 18.2 mm, 250 V/2 A

Pict.: green   Mounting hole

18.2 +0.2

Technical data

General information

Form of lens	protruding lens
Colour of lens	see order block
Form of collar	round

Dimensions

Diameter of collar	22 mm
Overall height	10.5 mm
Mounting depth	34 mm
Mounting hole	18.2 mm

Mechanical design

Mounting	ring nut
Terminals	see order block
Contact system	sliding bridge contact
Contact function	momentary
Contact arrangement	see order block
Contact materials	Ag
Illuminability	no
Lamp socket	no

Mechanical characteristics

Operating force max.	9.5 N
Operating travel	5 mm
Switching travel NC	2.1 mm
Switching travel NO	3.7 mm
Robustness min.	100 N

Electrical characteristics

Rated voltage AC max.	250 V
Rated current max.	2 A
Contact resistance acc. to life max.	200 mΩ

Other specifications

Operating life	50000
Degree of protection from front side	IP40 (IP65 with sealing cap)
Ambient temp. operating min.	-25 °C
Ambient temp. operating max.	+85 °C
Storage temperature min.	-40 °C
Storage temperature max.	+90 °C
Resistance to constant environment	according to IEC 600 68-2-3 and 2-30
Resistance at variable environment	according to IEC 60068-2-14 and 2-33
Weight	14 g
Flame class acc. to UL 94	V 0
Hot wire ignition acc. to IEC 60695-2-1	yes

Typical accessories Pushbutton, opaque, mounting hole diameter 18.2 mm, 250 V/2 A

Description	Photo	Order no.	Additional accessories see page
Neoprene sealing cap, black		5.52.008.061/0100	
Silicone sealing cap (IP65)		5.52.008.065/0000	
Protective sleeve for terminals		**5.52.011.028/0100**	
Fixing spanner M 18, M 19		**5.58.002.017/0105**	5 - 21

Stock items are marked
by **bold printed** order numbers.

RAFI
SOLUTIONS WITH PASSION

Pushbutton, opaque, mounting hole diameter 18.2 mm, 250 V/2 A

Pict.: green

Mounting hole
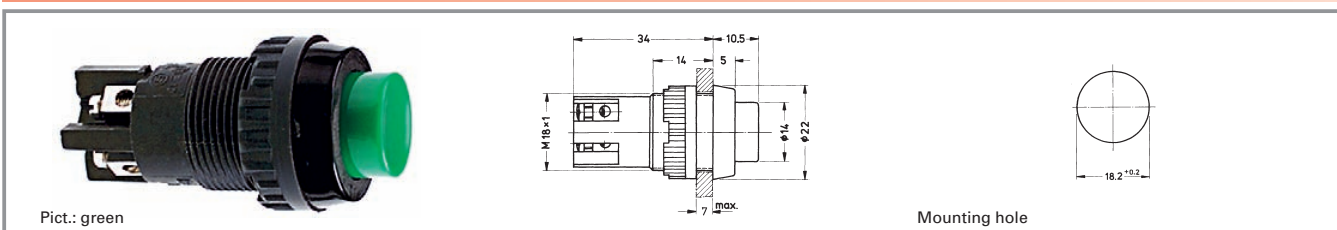
Contact arrangement	Contact function	Illuminability	Terminals	Colour of lens	Order no.
2 NO	momentary	no	screw terminals	opaque black	**1.01.102.001/0104**
2 NO	momentary	no	screw terminals	opaque red	**1.01.102.001/0301**
2 NO	momentary	no	screw terminals	opaque green	**1.01.102.001/0507**
1 NC + 1 NO	momentary	no	screw terminals	opaque black	**1.01.102.011/0104**
1 NC + 1 NO	momentary	no	screw terminals	opaque white	1.01.102.011/0205
1 NC + 1 NO	momentary	no	screw terminals	opaque red	**1.01.102.011/0301**
1 NC + 1 NO	momentary	no	screw terminals	opaque green	**1.01.102.011/0507**

Technical data see page 1 - 80

Stock items are marked
by **bold printed** order numbers.

RAFI
SOLUTIONS WITH PASSION

Illuminable pushbutton, with lamp socket BA9s (MBC/MCC), mounting hole diameter 20.3 mm, 250 V/2 A
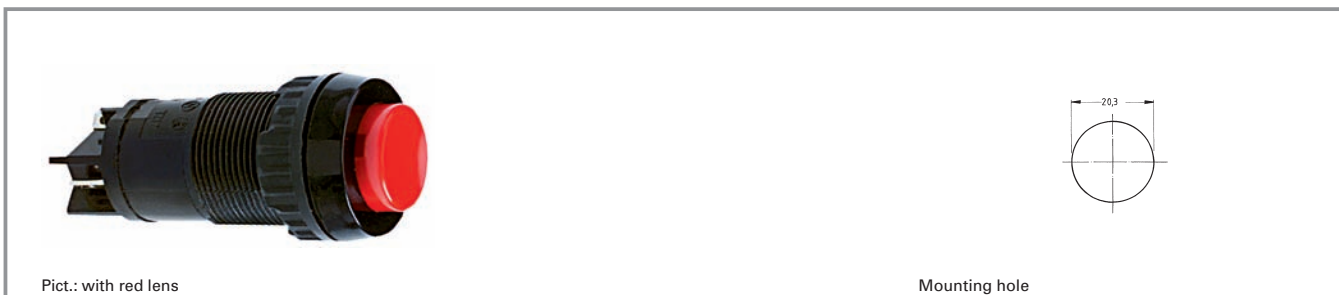
Pict.: with red lens

Mounting hole

Technical data

General information

Form of lens	protruding lens
Colour of lens	see order block
Form of collar	round

Dimensions

Diameter of collar	24 mm
Overall height	9 mm
Mounting depth	45.5 mm
Mounting hole	20.3 mm

Mechanical design

Mounting	ring nut
Terminals	solder/quick connect terminals 2.8 x 0.8 mm
Contact system	bridge contact
Contact function	momentary
Contact arrangement	see order block
Contact materials	Ag
Illuminability	yes
Lamp socket	BA 9 s

Mechanical characteristics

Operating force max.	10 N
Operating travel	3.6 mm
Switching travel NC	0.8 mm
Switching travel NO	2.9 mm
Robustness min.	100 N

Electrical characteristics

Rated voltage AC max.	250 V
Rated current max.	2 A
Contact resistance acc. to life max.	200 mΩ

Other specifications

Operating life	100000
Degree of protection from front side	IP40 (IP65 with sealing cap)
Ambient temp. operating min.	-25 °C
Ambient temp. operating max.	+85 °C
Storage temperature min.	-40 °C
Storage temperature max.	+90 °C
Resistance to constant environment	according to IEC 600 68-2-3 and 2-30
Resistance at variable environment	according to IEC 60068-2-14 and 2-33
Weight	18 g
Approvals	ENEC 25 T 55 (85)
Flame class acc. to UL 94	V 0
Hot wire ignition acc. to IEC 60695-2-1	yes

Typical accessories Illuminable pushbutton, with lamp socket BA9s (MBC/MCC), mounting hole diameter 20.3 mm, 250 V/2 A

Description	Photo	Order no.	Additional accessories see page
Filament lamp, BA 9s base (MBC/MCC), 12 - 15 V		**1.90.060.003/0000**	5 - 7
Filament lamp, BA 9s base (MBC/MCC), 24 - 30 V		**1.90.060.014/0000**	5 - 7
LED BA 9s (MBC/MCC) superbright, red, 24 V		**1.90.690.341/0000**	5 - 17
LED BA 9s (MBC/MCC) superbright, green, 24 V		**1.90.690.342/0000**	5 - 17

**Stock items** are marked by **bold printed** order numbers.

Typical accessories Illuminable pushbutton, with lamp socket BA9s (MBC/MCC), mounting hole diameter 20.3 mm, 250 V/2 A

1

Description	Photo	Order no.	Additional accessories see page
LED BA 9s (MBC/MCC) superbright, yellow, 24 V		**1.90.690.343/0000**	5 - 17
LED BA 9s (MBC/MCC) superbright, blue, 24 V		**1.90.690.344/0000**	5 - 17
LED BA 9s (MBC/MCC) superbright, white, 24 V		**1.90.690.345/0000**	5 - 17
Silicone sealing cap (IP65)		5.52.008.065/0000	
Protective sleeve for terminals		**5.52.011.030/0100**	
Fixing spanner M 20, M 22, for ring nut		**5.58.002.018/0105**	5 - 21

Illuminable pushbutton, with lamp socket BA9s (MBC/MCC), mounting hole diameter 20.3 mm, 250 V/2 A

Pict.: with red lens   Mounting hole

Other Pushb.
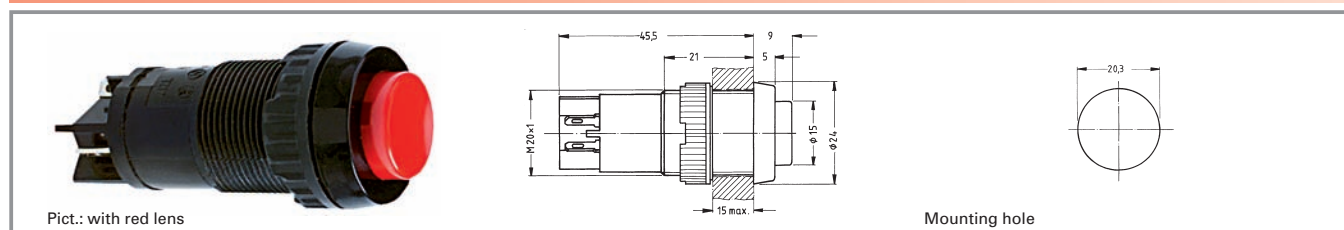
Contact function	Contact arrangement	Order no. without lens	Note
momentary	1 NO	1.15.112.101/0000	Please include the desired lens in your order.
momentary	1 NC + 1 NO	1.15.112.121/0000	Please include the desired lens in your order.

Technical data see page 1 - 82

Lenses:
Lens, transparent colourless: 5.49.205.008/1002
Lens, transparent red: 5.49.205.008/1303
Lens, transparent yellow: 5.49.205.008/1402
Lens, transparent green: 5.49.205.008/1502

Stock items are marked
by **bold printed** order numbers.